2.2.3 Dessins de concept de base

Le Tableau 2.2.3-1 montre le contenu de la coopération du présent Projet. Les dessins (plans) de concept de base sont indiqués à partir de la page qui suit.

Tableau 2.2.3-1 Contenu du Projet de coopération

		Pont Kaaka	Pont Soumba	Pont Dandaya	Pont Fanyé
Type de pont		Composition et consolidation des 3 travées, Pont à poutre I en béton précontraint	Composition et consolidation des 3 travées, Pont à poutre I en béton précontraint	Composition et consolidation des 3 travées, Pont à poutre I en béton précontraint	Composition et consolidation des 4 travées, Pont à poutre I en béton précontraint
Longueur du pont, longueur de travée		60,0m = 18,0+22,0+20,0	78,0m = 25,95+26,10+25,95	57,0m = 14,975+27,05+14,975	108,0m=26,925+27,075*2+26,925
Largeur		Largeur totale : 12,0m Voies : 2 voies (4,00m+4,00m) Accotement : 1,50m à chaque coté	Largeur totale : 11,0m Voies : 2 voies (3,50m+3,50m) Accotement : 1,50m à chaque coté	Largeur totale : 11,0m Voies : 2 voies (3,50m+3,50m) Accotement : 1,50m à chaque coté	Largeur totale : 11,0m Voies : 2 voies (3,50m+3,50m) Accotement : 1,50m à chaque coté
Revêtement de surface de pont		Revêtement en asphalte (50mm)	Revêtement en asphalte (50mm)	Revêtement en asphalte (50mm)	Revêtement en asphalte (50mm)
Type de culée		Culée A1 : poutre en T traversée (fondation à pieu moulé dans le sol) Culée A2: poutre en T traversée (fondation à pieu moulé dans le sol)	Culée A1 : poutre en T traversée (fondation directe) Culée A2: poutre en T traversée (fondation directe)	Culée A1 : poutre en T traversée (fondation à pieu moulé dans le sol) Culée A2: poutre en T traversée (fondation directe)	Culée A1 : poutre en T traversée (fondation directe) Culée A2: poutre en T traversée (fondation directe)
Type de pilier		Type mural	Type mural	Type mural	Type mural
Type de revêtement de rives		Maçonnerie en pierre maçonnée, revêtement en moellon maçonné, en gabion	Maçonnerie en pierre maçonnée, revêtement en moellon maçonné, en gabion	Maçonnerie en pierre maçonnée, revêtement en moellon maçonné, en gabion	Maçonnerie en pierre maçonnée, revêtement en moellon maçonné, en gabion
Voies d'accès	**Longueur**	Coté rive gauche: 76,2m Coté rive droite: 92,5m	Coté rive gauche: 270,1m Coté rive droite: 171,9m	Coté rive gauche: 168,5m Coté rive droite: 134,5m	Coté rive gauche: 137,5m Coté rive droite: 154,5m
	Largeur	Largeur totale : 13,0m Voies : 2 voies (4,00m+4,00m) Accotement : 1,50m à chaque coté	Largeur totale : 11,0m Voies : 2 voies (3,50m+3,50m) Accotement : 1,50m à chaque coté	Largeur totale : 11,0m Voies : 2 voies (3,50m+3,50m) Accotement : 1,50m à chaque coté	Largeur totale : 11,0m Voies : 2 voies (3,50m+3,50m) Accotement : 1,50m à chaque coté
	Revêtement	En asphalte (50mm)	En asphalte (50mm)	Revêtement bicouche	Revêtement bicouche
Travaux de cours d'eau		Longueur 196,0m	Non applicable	Non applicable	Non applicable

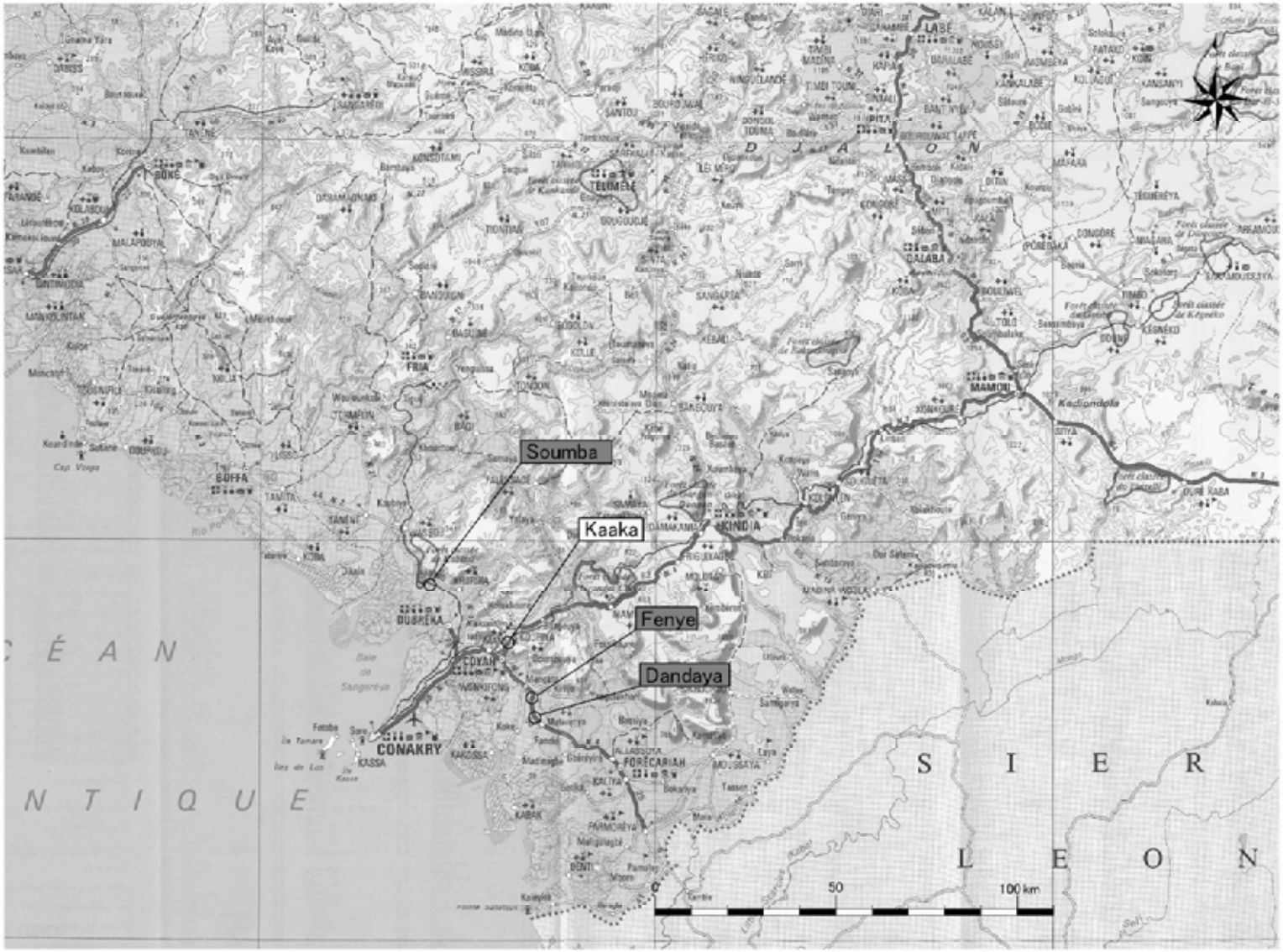
INDEX

KAAKA BRIDGE

SOUMBA BRIDGE

DANDAYA BRIDGE

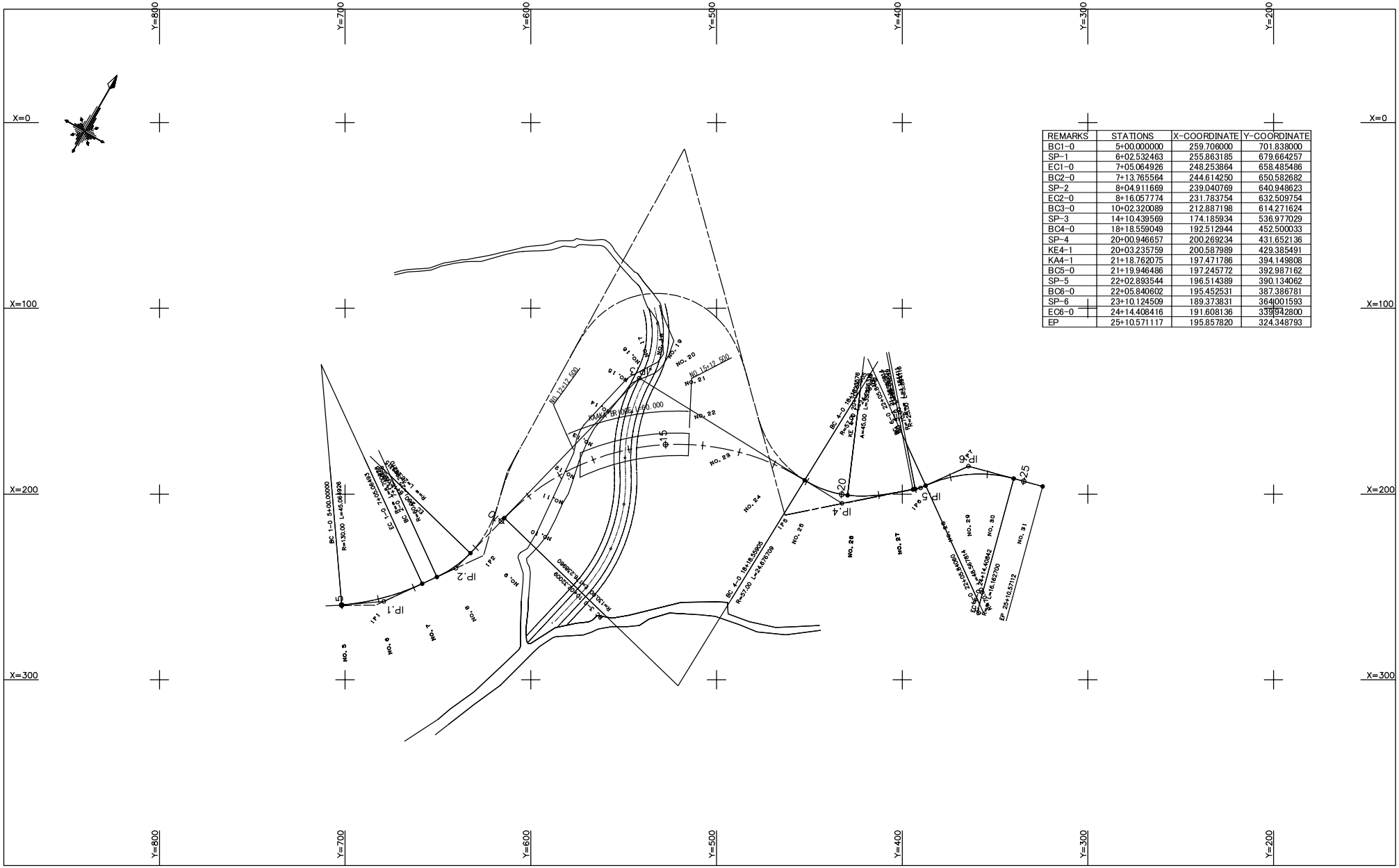
FANYE BRIDGE



ROAD INVESTMENT DEPARTMENT MINISTRY OF PUBLIC WORKS, URBANIZATION AND HABITAT	BASIC DESIGN ON THE PROJECT FOR REHABILITATION OF BRIDGES ON ARTERIAL NATIONAL ROADS IN THE REPUBLIC OF GUINEA	JAPAN INTERNATIONAL COOPERATION AGENCY KATAHIRA & ENGINEERS INTERNATIONAL	TITLE : KAAKA BRIDGE LOCATION MAP	SCALE :	DRAWING No K-1

COORDINATION DRAWING

(KAAKA BRIDGE)

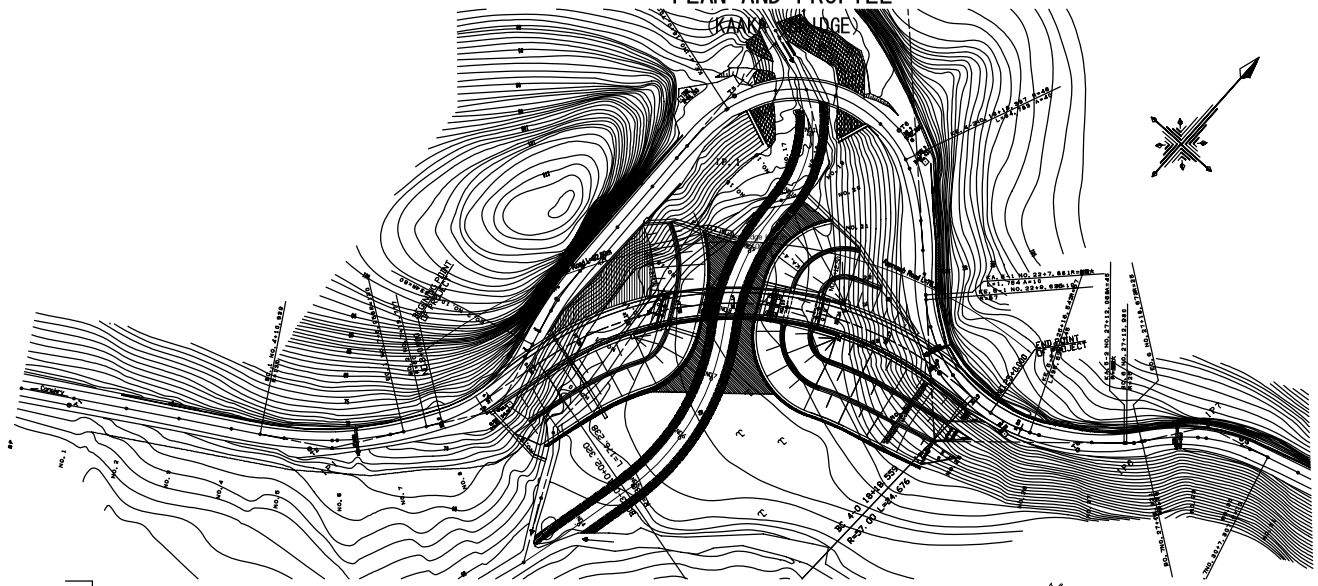


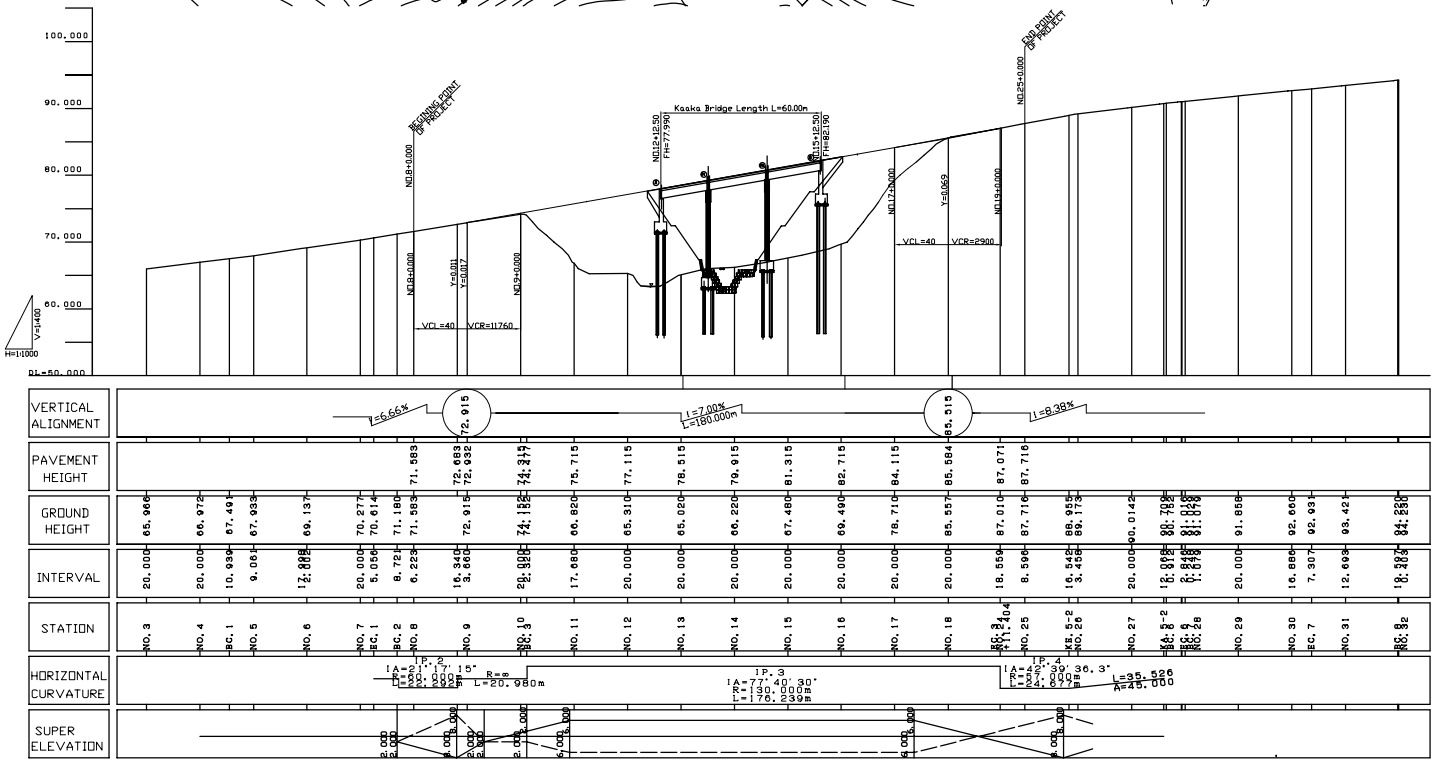
REMARKS	STATIONS	X-COORDINATE	Y-COORDINATE
BC1-0	5+00.000000	259.706000	701.838000
SP-1	6+02.532463	255.863185	679.664257
EC1-0	7+05.064926	248.253864	658.485486
BC2-0	7+13.765564	244.614250	650.582682
SP-2	8+04.911669	239.040769	640.948623
EC2-0	8+16.057774	231.783754	632.509754
BC3-0	10+02.320089	212.887198	614.271624
SP-3	14+10.439569	174.185934	536.977029
BC4-0	18+18.559049	192.512944	452.500033
SP-4	20+00.946657	200.269234	431.652136
KE4-1	20+03.235759	200.587989	429.385491
KA4-1	21+18.762075	197.471786	394.149808
BC5-0	21+19.946486	197.245772	392.987162
SP-5	22+02.893544	196.514389	390.134062
BC6-0	22+05.840602	195.452531	387.386781
SP-6	23+10.124509	189.373831	364.001593
EC6-0	24+14.408416	191.608136	339.942800
EP	25+10.571117	195.857820	324.348793

ROAD INVESTMENT DEPARTMENT MINISTRY OF PUBLIC WORKS, URBANIZATION AND HABITAT	BASIC DESIGN ON THE PROJECT FOR REHABILITATION OF BRIDGES ON ARTERIAL NATIONAL ROADS IN THE REPUBLIC OF GUINEA	JAPAN INTERNATIONAL COOPERATION AGENCY KATAHIRA & ENGINEERS INTERNATIONAL	TITLE: KAAKA BRIDGE COORDINATION DRAWING	SCALE: S=1:1000	DRAWING No: K-2

PLAN AND PROFILE

(KAAKA BRIDGE)

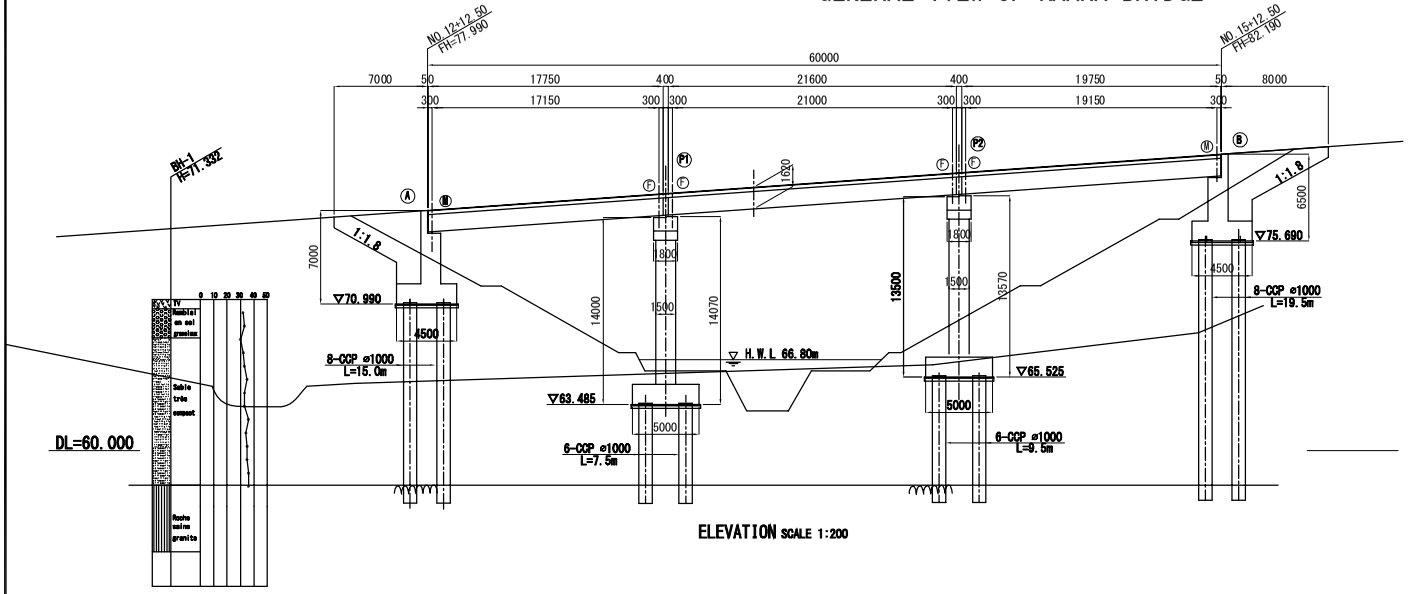




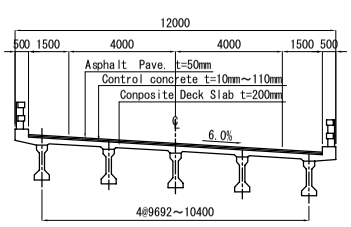
ROAD INVESTMENT DEPARTMENT MINISTRY OF PUBLIC WORKS, URBANIZATION AND HABITAT	BASIC DESIGN ON THE PROJECT FOR REHABILITATION OF BRIDGES ON ARTERIAL NATIONAL ROADS IN THE REPUBLIC OF GUINEA	JAPAN INTERNATIONAL COOPERATION AGENCY KATAHIRA & ENGINEERS INTERNATIONAL	TITLE: KAAKA BRIDGE PLAN AND PROFILE

SCALE:	DRAWING No:
H=1:1000 v=1: 400	K-3

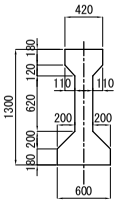
GENERAL VIEW OF KAAKA BRIDGE



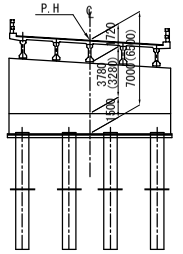
ELEVATION SCALE 1:200



BRIDGE CROSS SECTION SCALE 1:100

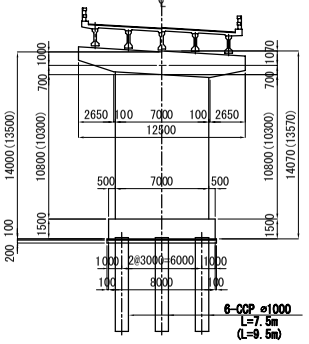


DETAIL SCALE 1:30



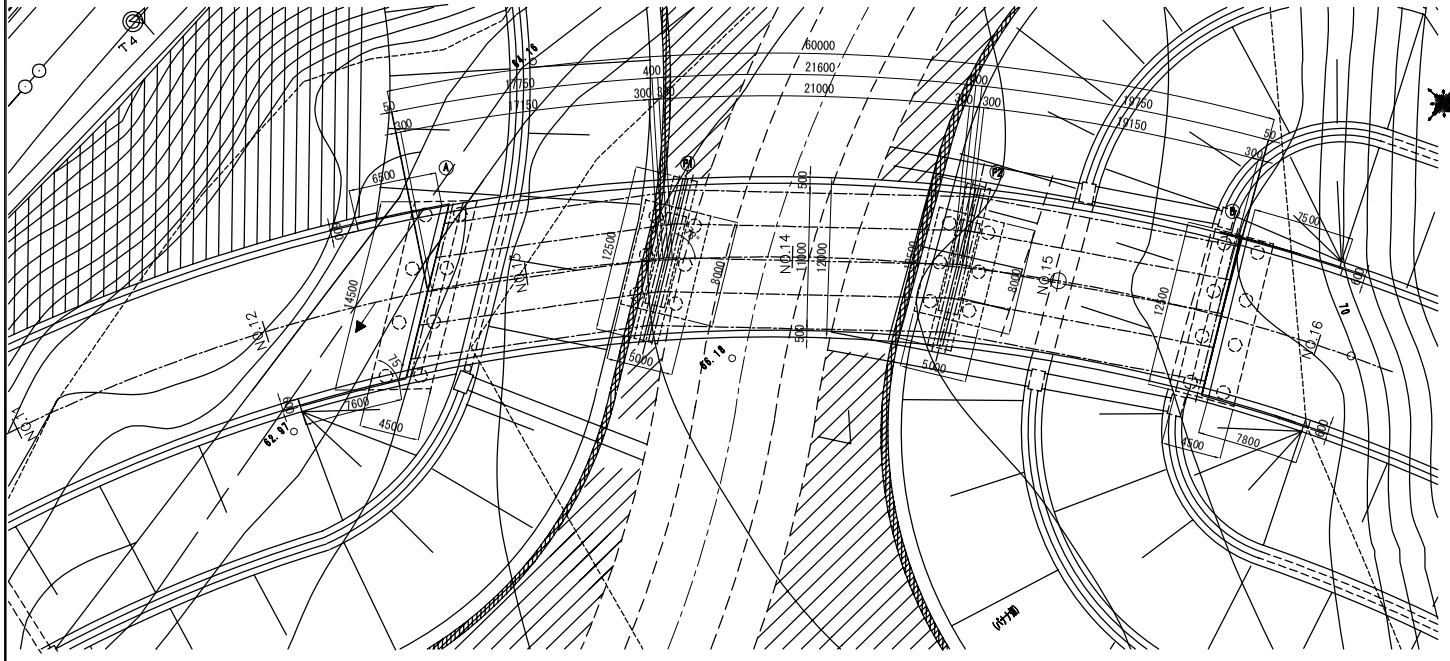
ABUTMENTS SCALE 1:200

Ⓐ (Ⓑ)

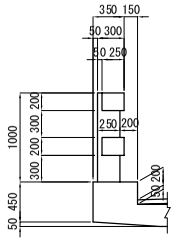


PIERS SCALE 1:200

(P1) (P2)



PLAN SCALE 1:200



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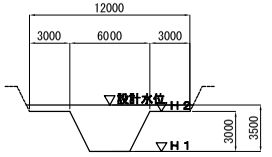


ELEVATION OF RIVER SECTION (m)

POSITION	H1	H2
UPPER STREAM	64.5	67.5
ROOTE CENTER	63.1	66.1
LOWER STREAM	61.8	64.8

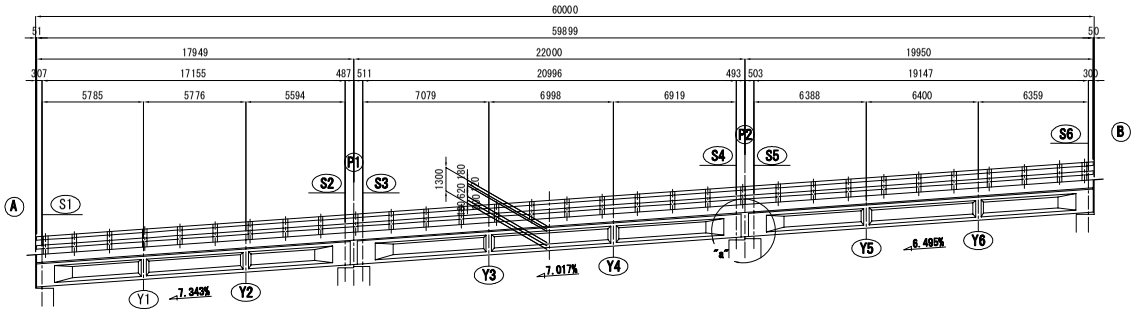
DESIGN CRITERIA

ROAD CLASS		NATIONAL ROAD
DEGING SPEED		V＝40km/h
TYPE OF SUPERSTRUCTURE		3-SPAN CONNECTING PC-COMPOSITE GIRDER
BRIDGE LENGTH		60.000m
SPAN LENGTH		17.150m＋21.000m＋19.150m
LIVE LOAD		BPEL 91 A-LIVE ROAD (FRENCH)
		LIVE LOAD TYPE-B(JAPAN)
ROADWAY WIDTH		2×4.000m＝8.000m
SHOULDER WIDTH		2×1.500m
CROSS SLOPE		6%
SEISMIC COEFFICIENT		kh=0.100
MATERIAL STRENGTH	GIRDER CON.	σck＝36N/mm²
	CROSS BEAM CON.	σck＝30N/mm²
	SLAB、CROSS	σck＝24N/mm²
	WIRE FOR PC.	fpy＝1600N/mm²
	REINFORCEMENT	fy＝295N/mm²(SD295) YIELD STRESS
	SUB STRUCTURE CON.	σck＝24N/mm²
DESING STANDARD		SPECIFICATION FOR HIGWAY BRIDGES JAPAN ASSOCIATION Ⅰ～Ⅴ (MARCH-2002)

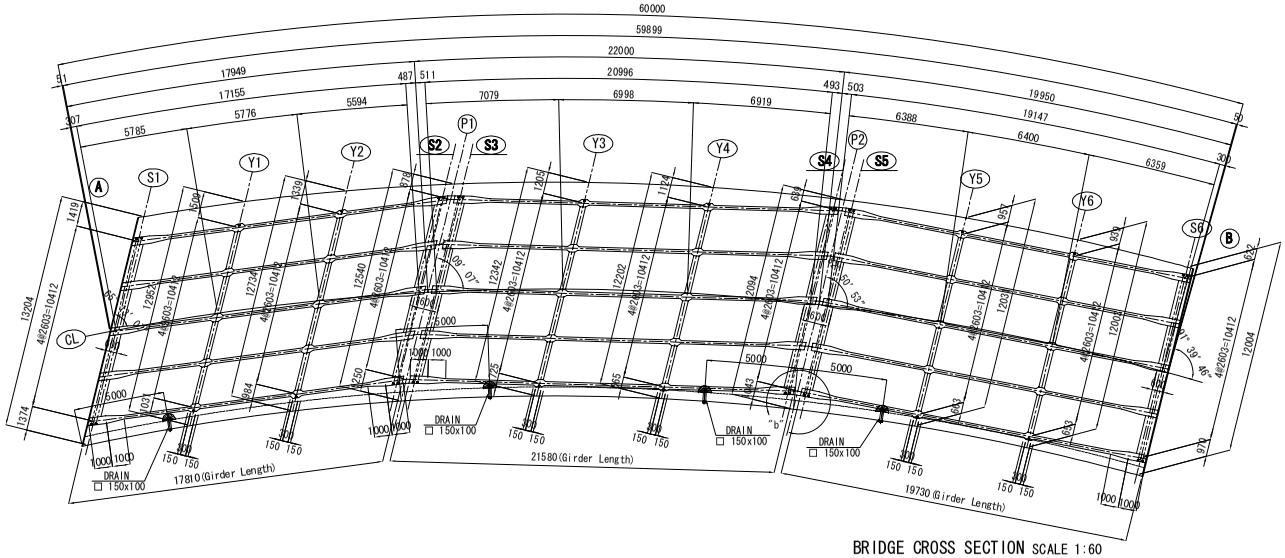
ROAD INVESTMENT DEPARTMENT MINISTRY OF PUBLIC WORKS, URBANIZATION AND HABITAT	BASIC DESIGN ON THE PROJECT FOR REHABILITATION OF BRIDGES ON ARTERIAL NATIONAL ROADS IN THE REPUBLIC OF GUINEA	JAPAN INTERNATIONAL COOPERATION AGENCY KATAHIRA & ENGINEERS INTERNATIONAL	TITLE: GENERAL VIEW OF KAAKA BRIDGE	SCALE: S=1:200	DRAWING No: K-4

STRUCTURE DRAWING OF SUPERSTURUCTURE
(KAAKA BRIDGE)

ELEVATION SCALE 1:150

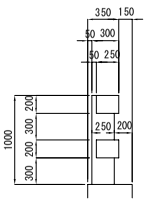


PLAN SCALE 1:150

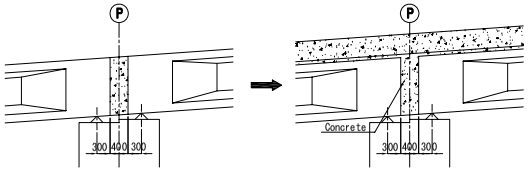


BRIDGE CROSS SECTION SCALE 1:60

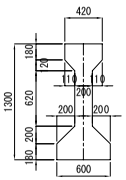
DETAIL SCALE 1:30



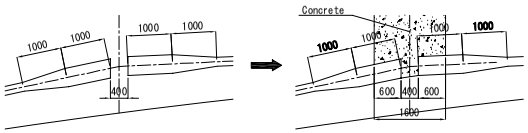
"a" DETAIL SCALE 1:60



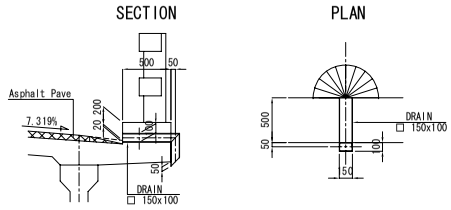
DETAIL SCALE 1:30



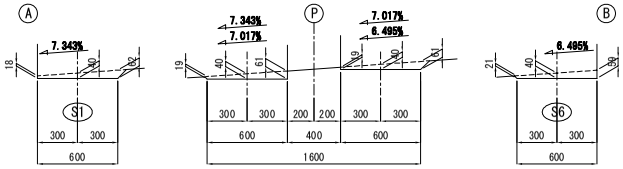
"b" DETAIL SCALE 1:60



DRAINAGE SCALE 1:30



LEAER DETAIL SCALE 1:20



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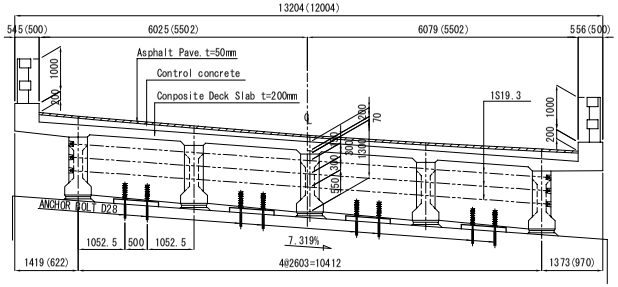

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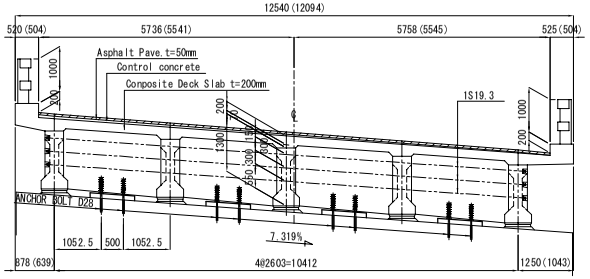
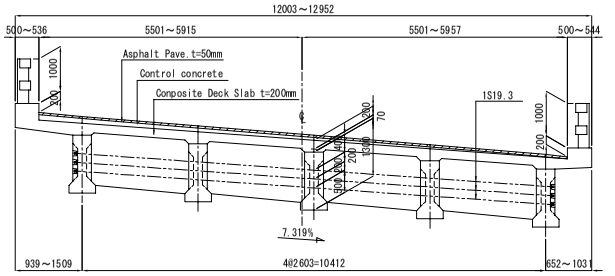


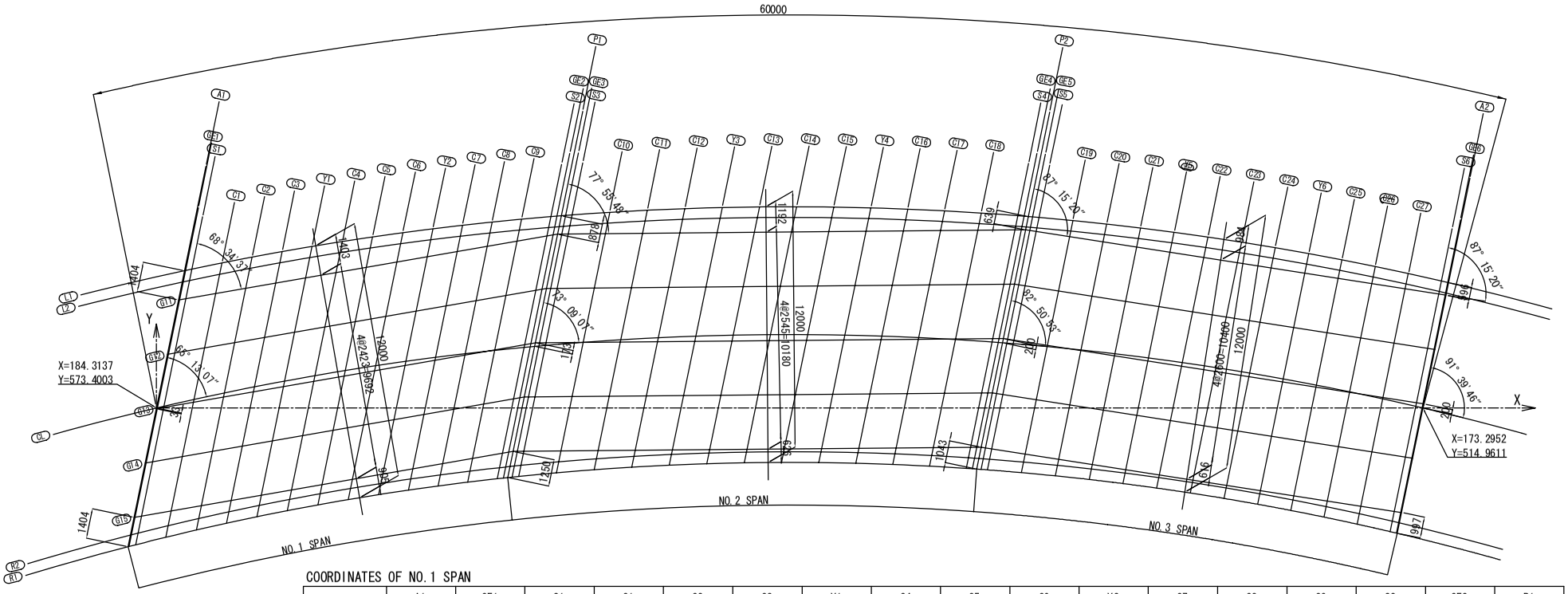
(Y1)～(Y6)

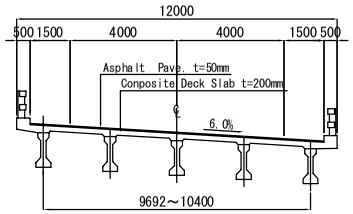


ROAD INVESTMENT DEPARTMENT MINISTRY OF PUBLIC WORKS, URBANIZATION AND HABITAT	BASIC DESIGN ON THE PROJECT FOR REHABILITATION OF BRIDGES ON ARTERIAL NATIONAL ROADS IN THE REPUBLIC OF GUINEA	JAPAN INTERNATIONAL COOPERATION AGENCY KATAHIRA & ENGINEERS INTERNATIONAL	TITLE: KAAKA BRIDGE STRUCTURE DRAWING OF SUPERSTURUCTURE	SCALE: S=1:150	DRAWING No: K-5

COORDINATION OF SUPPERSTRUCTURE (1)

(KAAKA BRIDGE)





BRIDGE CROSS SECTION SCALE 1:100

COORDINATES OF NO.1 SPAN

		A1	GE1	S1	C1	C2	C3	Y1	C4	C5	C6	Y2	C7	C8	C9	S2	GE2	P1
L1	X	1.3181	1.3677	1.6657	3.0803	4.4915	5.8995	7.3042	8.7291	10.1508	11.5692	12.9844	14.3733	15.7592	17.1421	18.5221	18.8120	19.0051
	Y	6.4444	6.4550	6.5182	6.8087	7.0830	7.3413	7.5838	7.8143	8.0288	8.2276	8.4108	8.5759	8.7263	8.8620	8.9832	9.0069	9.0223
	Z	78.7045	78.7079	78.7283	78.8249	78.9211	79.0169	79.1123	79.2088	79.3051	79.4009	79.4964	79.5900	79.6832	79.7762	79.8689	79.8884	79.9013
	H		0.3819	0.3792	0.3669	0.3553	0.3446	0.3346	0.3252	0.3167	0.3090	0.3021	0.2961	0.2909	0.2865	0.2829	0.2822	0.2818
L2	X	1.2087	1.2584	1.5565	2.9715	4.3832	5.7917	7.1968	8.6222	10.0442	11.4631	12.8787	14.2679	15.6542	17.0374	18.4177	18.7076	18.9009
	Y	5.9095	5.9202	5.9839	6.2769	6.5536	6.8141	7.0587	7.2913	7.5079	7.7087	7.8937	8.0606	8.2127	8.3500	8.4728	8.4968	8.5124
	Z	78.4898	78.4932	78.5137	78.6107	78.7074	78.8035	78.8993	78.9963	79.0929	79.1892	79.2850	79.3790	79.4727	79.5660	79.6591	79.6786	79.6917
	H		0.2072	0.2045	0.1924	0.1811	0.1706	0.1609	0.1518	0.1435	0.1360	0.1294	0.1237	0.1187	0.1145	0.1112	0.1106	0.1102
G11	X	1.0366	1.0859	1.3815	2.7866	4.1917	5.5968	7.0019	8.4305	9.8590	11.2876	12.7162	14.1213	15.5264	16.9315	18.3366	18.6322	18.8292
	Y	5.0684	5.0770	5.1284	5.3727	5.6170	5.8613	6.1057	6.3541	6.6025	6.8508	7.0992	7.3436	7.5879	7.8322	8.0765	8.1279	8.1622
	Z	78.4194	78.4226	78.4421	78.5355	78.6298	78.7250	78.8212	78.9199	79.0195	79.1200	79.2214	79.3219	79.4232	79.5253	79.6281	79.6499	79.6644
G12	X	0.5151	0.5643	0.8599	2.2650	3.6701	5.0752	6.4803	7.9089	9.3375	10.7660	12.1946	13.5997	15.0048	16.4099	17.8150	18.1106	18.3076
	Y	2.5182	2.5268	2.5782	2.8225	3.0668	3.3112	3.5555	3.8039	4.0523	4.3007	4.5490	4.7934	5.0377	5.2820	5.5263	5.5777	5.6120
	Z	78.2044	78.2077	78.2274	78.3218	78.4171	78.5135	78.6108	78.7107	78.8116	78.9133	79.0160	79.1178	79.2204	79.3238	79.4280	79.4500	79.4647
CL	X	0.0000	0.0499	0.3492	1.7701	3.1874	4.6012	6.0115	7.4419	8.8688	10.2922	11.7123	13.1057	14.4960	15.8831	17.2670	17.5577	17.7515
	Y	0.0000	0.0117	0.0815	0.4029	0.7068	0.9935	1.2634	1.5206	1.7608	1.9841	2.1909	2.3783	2.5500	2.7062	2.8470	2.8747	2.8928
	Z	77.9900	77.9936	78.0151	78.1171	78.2185	78.3195	78.4200	78.5218	78.6231	78.7239	78.8244	78.9228	79.0209	79.1186	79.2159	79.2364	79.2500
	H		0.1489	0.1469	0.1376	0.1291	0.1214	0.1145	0.1083	0.1030	0.0984	0.0947	0.0919	0.0899	0.0887	0.0883	0.0883	0.0884
G13	X	-0.0065	0.0427	0.3383	1.7434	3.1485	4.5536	5.9587	7.3873	8.8159	10.2444	11.6730	13.0781	14.4832	15.8883	17.2934	17.5890	17.7860
	Y	-0.0320	-0.0234	0.0280	0.2723	0.5166	0.7610	1.0053	1.2537	1.5021	1.7505	1.9989	2.2432	2.4875	2.7318	2.9761	3.0275	3.0618
	Z	77.9873	77.9906	78.0105	78.1060	78.2025	78.3000	78.3985	78.4996	78.6017	78.7047	78.8087	78.9118	79.0158	79.1206	79.2262	79.2485	79.2634
G14	X	-0.5281	-0.4789	-0.1833	1.2218	2.6269	4.0320	5.4371	6.8657	8.2943	9.7228	11.1514	12.5565	13.9616	15.3667	16.7718	17.0674	17.2645
	Y	-2.5821	-2.5736	-2.5222	-2.2779	-2.0336	-1.7892	-1.5449	-1.2965	-1.0481	-0.7997	-0.5513	-0.3070	-0.0627	0.1816	0.4259	0.4773	0.5116
	Z	77.7679	77.7713	77.7915	77.8880	77.9856	78.0843	78.1840	78.2863	78.3897	78.4941	78.5994	78.7040	78.8093	78.9156	79.0226	79.0452	79.0603
G15	X	-1.0497	-1.0005	-0.7049	0.7002	2.1053	3.5104	4.9156	6.3441	7.7727	9.2012	10.6298	12.0349	13.4400	14.8451	16.2503	16.5458	16.7429
	Y	-5.1323	-5.1238	-5.0724	-4.8281	-4.5837	-4.3394	-4.0951	-3.8467	-3.5983	-3.3499	-3.1015	-2.8572	-2.6129	-2.3686	-2.1243	-2.0729	-2.0386
	Z	77.5463	77.5497	77.5700	77.6677	77.7665	77.8663	77.9672	78.0709	78.1756	78.2814	78.3881	78.4941	78.6009	78.7086	78.8172	78.8401	78.8554
R2	X	-1.2196	-1.1695	-0.8688	0.5586	1.9821	3.4018	4.8179	6.2538	7.6861	9.1147	10.5396	11.9377	13.3324	14.7238	16.1118	16.4033	16.5976
	Y	-5.9632	-5.9503	-5.8737	-5.5207	-5.1864	-4.8704	-4.5726	-4.2881	-4.0217	-3.7732	-3.5424	-3.3323	-3.1389	-2.9620	-2.8013	-2.7696	-2.7488
	Z	77.4735	77.4773	77.5000	77.6074	77.7143	77.8206	77.9264	78.0334	78.1399	78.2459	78.3514	78.4547	78.5576	78.6602	78.7623	78.7837	78.7980
	H		0.0780	0.0766	0.0705	0.0651	0.0606	0.0568	0.0539	0.0518	0.0505	0.0500	0.0504	0.0517	0.0537	0.0566	0.0573	0.0578
R1	X	-1.3311	-1.2810	-0.9801	0.4479	1.8720	3.2923	4.7089	6.1454	7.5782	9.0073	10.4327	11.8312	13.2264	14.6181	16.0065	16.2981	16.4925
	Y	-6.5083	-6.4953	-6.4180	-6.0619	-5.7246	-5.4059	-5.1054	-4.8182	-4.5493	-4.2984	-4.0653	-3.8530	-3.6576	-3.4786	-3.3160	-3.2839	-3.2629
	Z	77.6556	77.6594	77.6822	77.7902	77.8976	78.0045	78.1107	78.2183	78.3252	78.4317	78.5377	78.6415	78.7449	78.8479	78.9505	78.9720	78.9864
	H		0.3009	0.2995	0.2937	0.2886	0.2844	0.2810	0.2783	0.2765	0.2756	0.2754	0.2761	0.2777	0.2800	0.2832	0.2840	0.2845

ROAD INVESTMENT DEPARTMENT MINISTRY OF PUBLIC WORKS, URBANIZATION AND HABITAT	BASIC DESIGN ON THE PROJECT FOR REHABILITATION OF BRIDGES ON ARTERIAL NATIONAL ROADS IN THE REPUBLIC OF GUINEA	JAPAN INTERNATIONAL COOPERATION AGENCY KATAHIRA & ENGINEERS INTERNATIONAL	TITLE : KAAKA BRIDGE COORDINATION OF SUPPERSTRUCTURE (1)	SCALE : S=1:100	DRAWING No: K-6

COORDINATION OF SUPPERSTRUCTURE (2)

(KAAKA BRIDGE)

COORDINATES OF NO.2 SPAN

		P1	GE3	S3	C10	C11	C12	Y3	C13	C14	C15	Y4	C16	C17	C18	S4	GE4	P2
L1	X	19.0051	19.2080	19.5122	21.2813	23.0456	24.8052	26.5601	28.3129	30.0610	31.8046	33.5437	35.2757	37.0032	38.7263	40.4449	40.7395	40.9359
	Y	9.0223	9.0382	9.0615	9.1832	9.2816	9.3568	9.4092	9.4388	9.4458	9.4304	9.3928	9.3333	9.2518	9.1486	9.0238	9.0002	8.9841
	Z	79.9013	79.9150	79.9354	80.0540	80.1723	80.2901	80.4076	80.5249	80.6419	80.7585	80.8749	80.9909	81.1066	81.2221	81.3374	81.3572	81.3704
	H	0.2818	0.2803	0.2781	0.2661	0.2554	0.2461	0.2380	0.2314	0.2261	0.2221	0.2196	0.2184	0.2186	0.2202	0.2233	0.2239	0.2244
L2	X	18.9009	19.1038	19.4081	21.1775	22.9422	24.7021	26.4573	28.2104	29.9588	31.7027	33.4420	35.1742	36.9019	38.6251	40.3440	40.6386	40.8350
	Y	8.5124	8.5285	8.5521	8.6757	8.7759	8.8527	8.9066	8.9376	8.9460	8.9319	8.8955	8.8370	8.7565	8.6542	8.5302	8.5067	8.4907
	Z	79.6917	79.7053	79.7258	79.8449	79.9636	80.0820	80.1999	80.3176	80.4351	80.5522	80.6690	80.7854	80.9016	81.0175	81.1333	81.1531	81.1663
	H	0.1102	0.1088	0.1066	0.0949	0.0846	0.0756	0.0679	0.0616	0.0566	0.0530	0.0508	0.0500	0.0506	0.0526	0.0560	0.0567	0.0572
G21	X	18.8292	19.0292	19.3292	21.0766	22.8239	24.5713	26.3187	28.0686	29.8185	31.5685	33.3184	35.0658	36.8131	38.5605	40.3079	40.6078	40.8078
	Y	8.1622	8.1639	8.1666	8.1822	8.1978	8.2134	8.2289	8.2445	8.2601	8.2757	8.2913	8.3069	8.3225	8.3381	8.3537	8.3563	8.3581
	Z	79.6644	79.6769	79.6958	79.8069	79.9194	80.0335	80.1490	80.2661	80.3845	80.5043	80.6254	80.7475	80.8709	80.9954	81.1210	81.1427	81.1572
G22	X	18.3076	18.5076	18.8076	20.5550	22.3023	24.0497	25.7971	27.5470	29.2969	31.0469	32.7968	34.5442	36.2915	38.0389	39.7863	40.0863	40.2862
	Y	5.6120	5.6138	5.6164	5.6320	5.6476	5.6632	5.6787	5.6943	5.7099	5.7255	5.7411	5.7567	5.7723	5.7879	5.8035	5.8061	5.8079
	Z	79.4647	79.4775	79.4967	79.6093	79.7236	79.8393	79.9566	80.0755	80.1958	80.3174	80.4404	80.5645	80.6899	80.8164	80.9441	80.9661	80.9808
CL	X	17.7515	17.9549	18.2600	20.0338	21.8026	23.5663	25.3252	27.0817	28.8333	30.5801	32.3221	34.0569	35.7869	37.5123	39.2331	39.5280	39.7246
	Y	2.8928	2.9114	2.9388	3.0838	3.2040	3.2998	3.3714	3.4191	3.4431	3.4435	3.4204	3.3743	3.3052	3.2133	3.0987	3.0768	3.0618
	Z	79.2500	79.2643	79.2857	79.4103	79.5344	79.6581	79.7813	79.9043	80.0269	80.1492	80.2712	80.3926	80.5138	80.6348	80.7555	80.7762	80.7900
	H	0.0884	0.0874	0.0859	0.0781	0.0716	0.0665	0.0628	0.0605	0.0595	0.0600	0.0619	0.0653	0.0701	0.0763	0.0840	0.0855	0.0865
G23	X	17.7860	17.9860	18.2860	20.0334	21.7808	23.5281	25.2755	27.0254	28.7753	30.5253	32.2752	34.0226	35.7699	37.5173	39.2647	39.5647	39.7647
	Y	3.0618	3.0636	3.0662	3.0818	3.0974	3.1130	3.1285	3.1441	3.1598	3.1754	3.1910	3.2065	3.2221	3.2377	3.2533	3.2559	3.2577
	Z	79.2634	79.2764	79.2958	79.4102	79.5261	79.6437	79.7628	79.8835	80.0057	80.1294	80.2544	80.3805	80.5079	80.6365	80.7663	80.7887	80.8036
G24	X	17.2645	17.4644	17.7644	19.5118	21.2592	23.0065	24.7539	26.5038	28.2538	30.0037	31.7536	33.5010	35.2484	36.9957	38.7431	39.0431	39.2431
	Y	0.5116	0.5134	0.5160	0.5316	0.5472	0.5628	0.5784	0.5940	0.6096	0.6252	0.6408	0.6563	0.6719	0.6875	0.7031	0.7057	0.7075
	Z	79.0603	79.0735	79.0932	79.2093	79.3271	79.4465	79.5675	79.6902	79.8144	79.9400	80.0671	80.1953	80.3249	80.4556	80.5876	80.6104	80.6256
G25	X	16.7429	16.9429	17.2428	18.9902	20.7376	22.4849	24.2323	25.9822	27.7322	29.4821	31.2320	32.9794	34.7268	36.4741	38.2215	38.5215	38.7215
	Y	-2.0386	-2.0368	-2.0341	-2.0186	-2.0030	-1.9874	-1.9718	-1.9562	-1.9406	-1.9250	-1.9094	-1.8939	-1.8783	-1.8627	-1.8471	-1.8444	-1.8427
	Z	78.8554	78.8688	78.8888	79.0067	79.1263	79.2476	79.3706	79.4953	79.6215	79.7493	79.8785	80.0090	80.1407	80.2738	80.4081	80.4312	80.4467
R2	X	16.5976	16.8016	17.1075	18.8862	20.6594	22.4275	24.1903	25.9505	27.7056	29.4557	31.2007	32.9382	34.6708	36.3985	38.1214	38.4167	38.6135
	Y	-2.7488	-2.7273	-2.6958	-2.5273	-2.3850	-2.2684	-2.1773	-2.1113	-2.0703	-2.0541	-2.0624	-2.0950	-2.1517	-2.2323	-2.3366	-2.3569	-2.3708
	Z	78.7980	78.8130	78.8355	78.9661	79.0961	79.2256	79.3546	79.4834	79.6117	79.7396	79.8672	79.9942	80.1209	80.2473	80.3735	80.3951	80.4095
	H	0.0578	0.0573	0.0565	0.0530	0.0508	0.0500	0.0506	0.0527	0.0562	0.0611	0.0676	0.0754	0.0848	0.0956	0.1080	0.1103	0.1118
R1	X	16.4925	16.6965	17.0025	18.7816	20.5553	22.3238	24.0870	25.8476	27.6030	29.3534	31.0987	32.8365	34.5693	36.2972	38.0203	38.3156	38.5124
	Y	-3.2629	-3.2411	-3.2092	-3.0385	-2.8940	-2.7754	-2.6825	-2.6147	-2.5721	-2.5544	-2.5613	-2.5926	-2.6481	-2.7276	-2.8309	-2.8511	-2.8649
	Z	78.9864	79.0014	79.0240	79.1552	79.2858	79.4158	79.5454	79.6747	79.8036	79.9320	80.0601	80.1877	80.3149	80.4418	80.5685	80.5903	80.6047
	H	0.2846	0.2841	0.2834	0.2802	0.2785	0.2781	0.2791	0.2816	0.2855	0.2909	0.2978	0.3061	0.3159	0.3272	0.3400	0.3423	0.3439

COORDINATES OF NO.3 SPAN

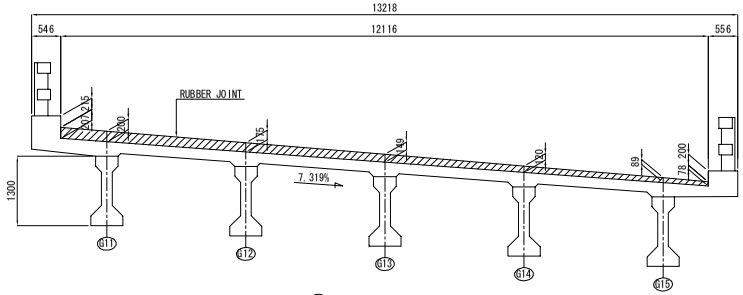
		P2	GE5	S5	C19	C20	C21	Y5	C22	C23	C24	Y6	C25	C26	C27	S6	GE6	A2
L1	X	40.9359	41.1364	41.4370	43.0293	44.6178	46.2026	47.7836	49.3694	50.9515	52.5298	54.1044	55.6666	57.2251	58.7799	60.3310	60.6230	60.6716
	Y	8.9841	8.9674	8.9418	8.7948	8.6294	8.4455	8.2432	8.0213	7.7810	7.5222	7.2450	6.9510	6.6388	6.3084	5.9598	5.8920	5.8807
	Z	81.3704	81.3838	81.4040	81.5110	81.6179	81.7246	81.8313	81.9384	82.0455	82.1525	82.2595	82.3659	82.4722	82.5786	82.6849	82.7050	82.7083
	H	0.2244	0.2238	0.2230	0.2194	0.2171	0.2160	0.2163	0.2178	0.2206	0.2247	0.2302	0.2370	0.2451	0.2546	0.2655	0.2677	
L2	X	40.8350	41.0355	41.3361	42.9285	44.5172	46.1020	47.6831	49.2691	50.8512	52.4296	54.0042	55.5664	57.1249	58.6797	60.2308	60.5228	60.5714
	Y	8.4907	8.4741	8.4486	8.3023	8.1374	7.9540	7.7522	7.5307	7.2906	7.0321	6.7550	6.4611	6.1489	5.8185	5.4698	5.4020	5.3906
	Z	81.1663	81.1798	81.2001	81.3075	81.4148	81.5219	81.6290	81.7365	81.8440	81.9514	82.0588	82.1655	82.2723	82.3790	82.4858	82.5059	82.5093
	H	0.0572	0.0567	0.0559	0.0527	0.0507	0.0500	0.0506	0.0525	0.0557	0.0602	0.0661	0.0732	0.0818	0.0916	0.1029	0.1052	
G31	X	40.8078	41.0055	41.3019	42.8744	44.4469	46.0194	47.5919	49.1730	50.7541	52.3352	53.9163	55.4888	57.0613	58.6338	60.2063	60.5027	60.5521
	Y	8.3581	8.3275	8.2815	8.0376	7.7938	7.5499	7.3061	7.0609	6.8157	6.5705	6.3254	6.0815	5.8377	5.5938	5.3500	5.3040	5.2963
	Z	81.1572	81.1697	81.1886	81.2895	81.3916	81.4950	81.5996	81.7059	81.8134	81.9221	82.0318	82.1420	82.2533	82.3655	82.4787	82.5001	82.5037
G32	X	40.2862	40.4839	40.7803	42.3528	43.9253	45.4978	47.0703	48.6514	50.2325	51.8136	53.3947	54.9672	56.5397	58.1122	59.6847	59.9811	60.0305
	Y	5.8079	5.7773	5.7313	5.4874	5.2436	4.9997	4.7559	4.5107	4.2655	4.0203	3.7752	3.5313	3.2875	3.0436	2.7998	2.7538	2.7461
	Z	80.9808	80.9936	81.0128	81.1156	81.2196	81.3249	81.4314	81.5398	81.6493	81.7600	81.8718	81.9841	82.0974	82.2117	82.3270	82.3489	82.3525
CL	X	39.7246	39.9253	40.2262	41.8202	43.4102	44.9962	46.5783	48.1651	49.7480	51.3268	52.9018	54.4643	56.0228	57.5775	59.1283	59.4202	59.4689
	Y	3.0618	3.0462	3.0221	2.8832	2.7249	2.5472	2.3504	2.1331	1.8964	1.6405	1.3652	1.0724	0.7605	0.4295	0.0795	0.0114	0.0000
	Z	80.7900	80.8041	80.8252	80.9372	81.0491	81.1608	81.2724	81.3845	81.4965	81.6085	81.7204	81.8317	81.9430	82.0542	82.1655	82.1865	82.1900
	H	0.0864	0.0864	0.0864	0.0873	0.0894	0.0928	0.0976	0.1037	0.1112	0.1201	0.1304	0.1420	0.1550	0.1694	0.1853	0.1885	
G33	X	39.7647	39.9623	40.2587	41.8312	43.4037	44.9762	46.5487	48.1298	49.7109	51.2920	52.8731	54.4456	56.0181	57.5906	59.1631	59.4595	59.5089
	Y	3.2577	3.2271	3.1811	2.9373	2.6934	2.4496	2.2057	1.9605	1.7153	1.4702	1.2250	0.9811	0.7373	0.4934	0.2496	0.2036	0.1959
	Z	80.8036	80.8167	80.8363	80.9409	81.0469	81.1542	81.2628	81.3732	81.4849	81.5977	81.7116	81.8260	81.9415	82.0581	82.1756	82.1979	82.2016
G34	X	39.2431	39.4407	39.7372	41.3096	42.8821	44.4546	46.0271	47.6082	49.1893	50.7704	52.3515	53.9240	55.4965	57.0690	58.6415	58.9379	58.9874
	Y	0.7075	0.6769	0.6309	0.3871	0.1432	-0.1006	-0.3445	-0.5897	-0.8349	-1.0800	-1.3252	-1.5691	-1.8129	-2.0568	-2.3006	-2.3466	-2.3542
	Z	80.6256	80.6389	80.6589	80.7656	80.8736	80.9830	81.0937	81.2062	81.3201	81.4351	81.5513	81.6680	81.7857	81.9045	82.0244	82.0457	82.0459
G35	X	38.7215	38.9191	39.2156	40.7881	42.3605	43.9330	45.5055	47.0866	48.6677	50.2488	51.8299	53.4024	54.9749	56.5474	58.1199	58.4164	58.4658
	Y	-1.8427	-1.8733	-1.9193	-2.1631	-2.4070	-2.6508	-2.8947	-3.1399	-3.3850	-3.6302	-3.8754	-4.1193	-4.3631	-4.6070	-4.8508	-4.8968	-4.9044
	Z	80.4467	80.4602	80.4806	80.5894	80.6996	80.8111	80.9240	81.0388	81.1549	81.2722	81.3907	81.5098	81.6299	81.7511	81.8733	81.8895	81.8898
R2	X	38.6135	38.8144	39.1157	40.7113	42.3027	43.8900	45.4732	47.0610	48.6446	50.2241	51.7994	53.3621	54.9207	56.4753	58.0258	58.3177	58.3663
	Y	-2.3708	-2.3853	-2.4077	-2.5386	-2.6898	-2.8612	-3.0526	-3.2653	-3.4983	-3.7514	-4.0247	-4.3164	-4.6280	-4.9595	-5.3109	-5.3793	-5.3908
	Z	80.4095	80.4243	80.4463	80.5634	80.6802	80.7969	80.9135	81.0306	81.1476	81.2645	81.3813	81.4975	81.6137	81.7299	81.8461	81.8600	81.8600
	H	0.1118	0.1123	0.1132	0.1184	0.1250	0.1330	0.1423	0.1531	0.1652	0.1789	0.1939	0.2104	0.2283	0.2477	0.2686	0.2647	
R1	X	38.5124	38.7134	39.0147	40.6104	42.2020	43.7894	45.3728	46.9606	48.5443	50.1238	51.6992	53.2619	54.8206	56.3751	57.9256	58.2174	58.2661
	Y	-2.8649	-2.8793	-2.9016	-3.0317	-3.1822	-3.3529	-3.5439	-3.7562	-3.9887	-4.2416	-4.5147	-4.8063	-5.1179	-5.4494	-5.8009	-5.8694	-5.8809
	Z	80.6047	80.6195	80.6417	80.7592	80.8765	80.9937	81.1107	81.2283	81.3457	81.4631	81.5805	81.6971	81.8138	81.9304	82.0471	82.0600	82.0600
	H	0.3439	0.3445	0.3454	0.3511	0.3581	0.3665	0.3762	0.3874	0.4001	0.4141	0.4297	0.4466	0.4649	0.4848	0.5062	0.5013	

ROAD INVESTMENT DEPARTMENT MINISTRY OF PUBLIC WORKS, URBANIZATION AND HABITAT	BASIC DESIGN ON THE PROJECT FOR REHABILITATION OF BRIDGES ON ARTERIAL NATIONAL ROADS IN THE REPUBLIC OF GUINEA	JAPAN INTERNATIONAL COOPERATION AGENCY KATAHIRA & ENGINEERS INTERNATIONAL	TITLE : KAAKA BRIDGE COORDINATION OF SUPPERSTRUCTURE (2)	SCALE : S=1:100	DRAWING No: K-7

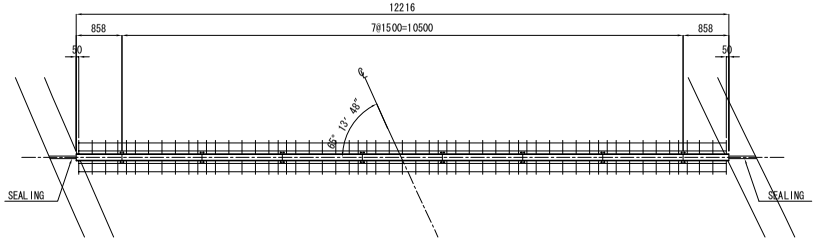
DETAILS OF EXPANSION JOINT AND DRAINAGE

(KAAKA BRIDGE)

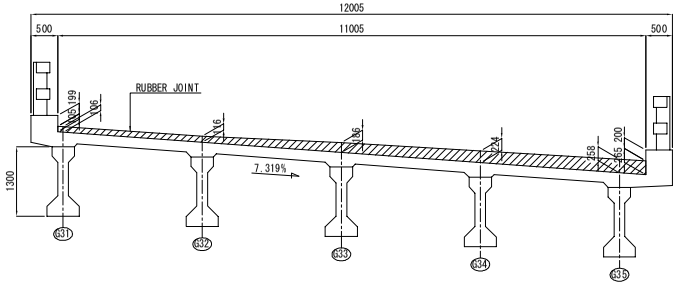
Ⓐ SECTION SCALE 1:50



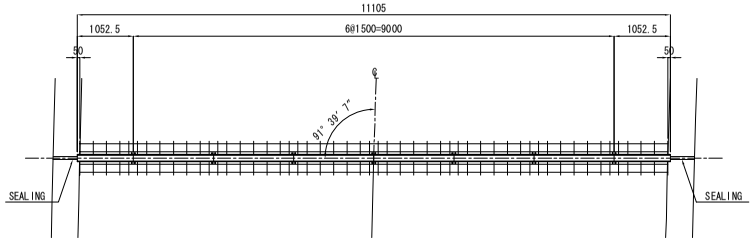
Ⓐ PLAN SCALE 1:50



Ⓑ SECTION SCALE 1:50

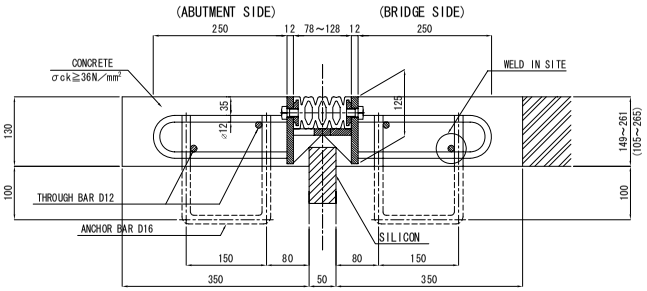


Ⓑ PLAN SCALE 1:50

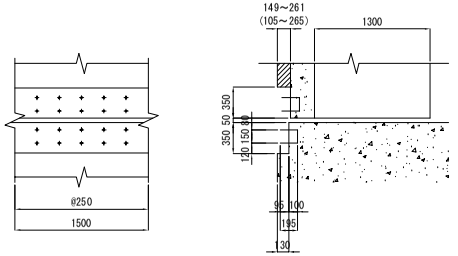


CROSS SECTION SCALE 1:5

Ⓐ,Ⓑ RUBBER JOINT FOR ROADWAY



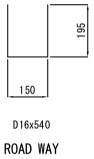
Ⓐ,Ⓑ ANCHOR BAR UNDER CONCRETE SCALE 1:30



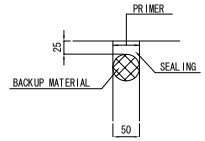
MATERIAL OF EXPANSION JOINT

MATERIAL	QUALITY	QUANTITY Ⓐ	QUANTITY Ⓑ	QUANTITY TOTAL	REMARKS
RUBBER JOINT FOR ROADWAY	SS400 COMPOSITE RUBBER SR235 SD295	12.22 m	11.11 m	23.3 m	ROADWAY
SEALING	SILICON	1.9 liter	1.8 liter	3.7 liter	

ANCHOR BAR SCALE 1:10



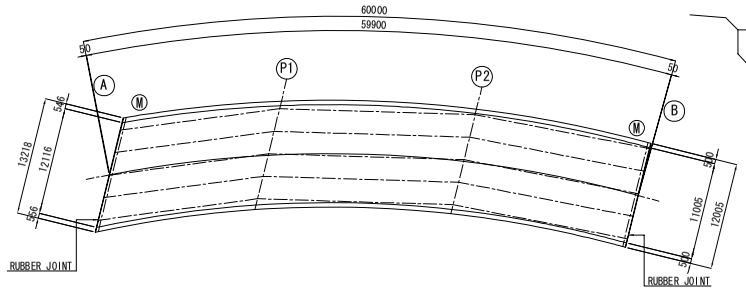
SEALING SCALE 1:5



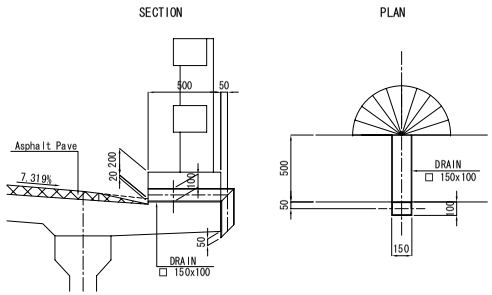
ANCHOR BAR

SIZE	QUANTITY Ⓐ	QUANTITY Ⓑ	QUANTITY TOTAL	WEIGHT EACH	WEIGHT TOTAL	REMARKS
D16x540	82	76	158	0.852 kg	134.62 kg	ROADWAY

MARKING DIAGRAM SCALE 1:300



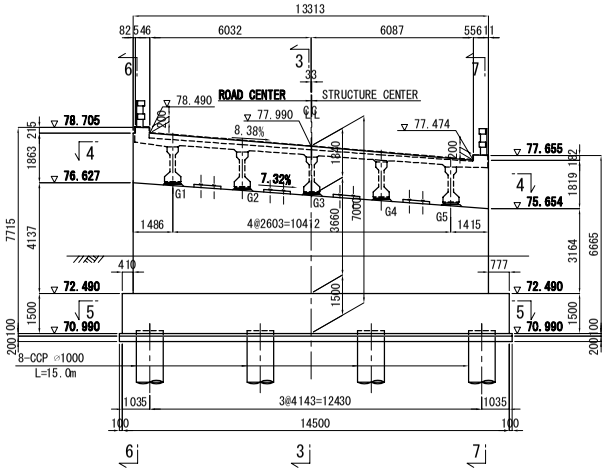
DRAINAGE SCALE 1:20



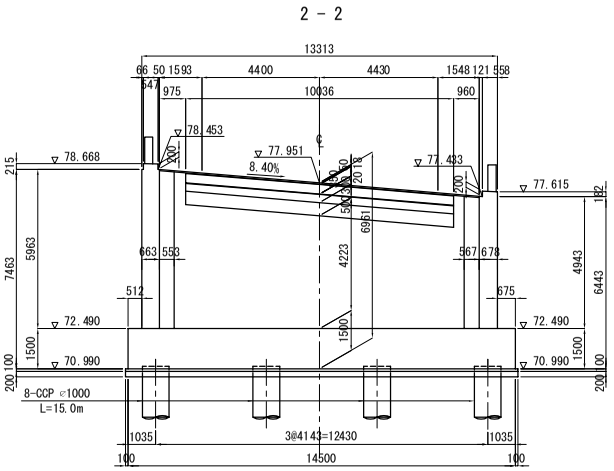
ROAD INVESTMENT DEPARTMENT MINISTRY OF PUBLIC WORKS, URBANIZATION AND HABITAT	BASIC DESIGN ON THE PROJECT FOR REHABILITATION OF BRIDGES ON ARTERIAL NATIONAL ROADS IN THE REPUBLIC OF GUINEA	JAPAN INTERNATIONAL COOPERATION AGENCY KATAHIRA & ENGINEERS INTERNATIONAL	TITLE: KAAKA BRIDGE DETAILS OF EXPANSION JOINT AND DRAINAGE	SCALE: S=1:5	DRAWING No: K-8	Rv.

STRUCTURE DRAWING OF A ABUTMENT (1) SCALE 1:100
(KAAKA BRIDGE)

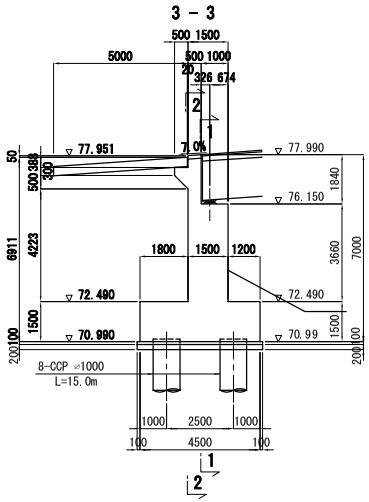
1 - 1



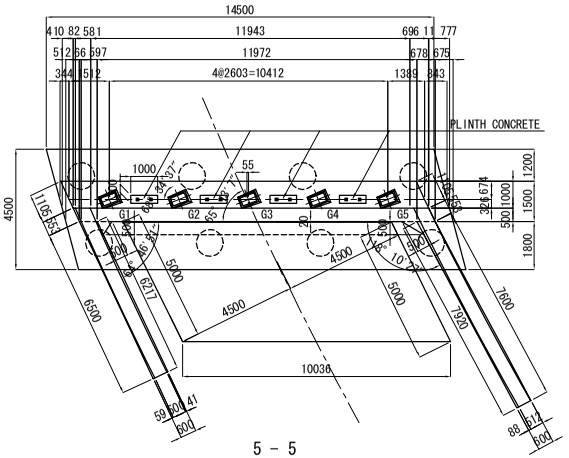
2 - 2



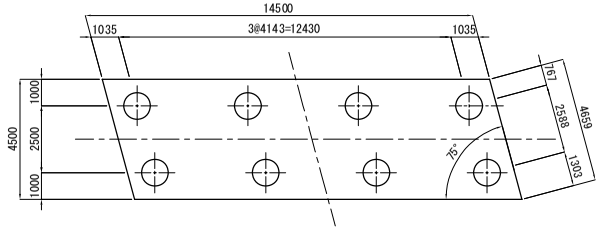
3 - 3



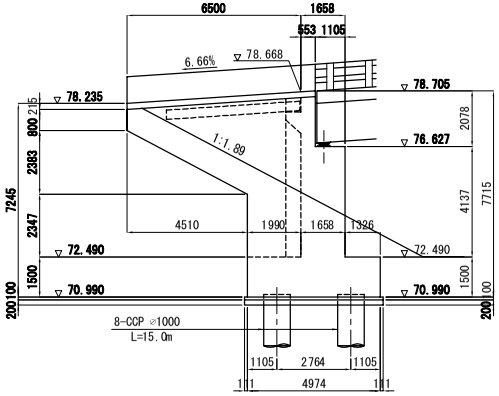
4 - 4



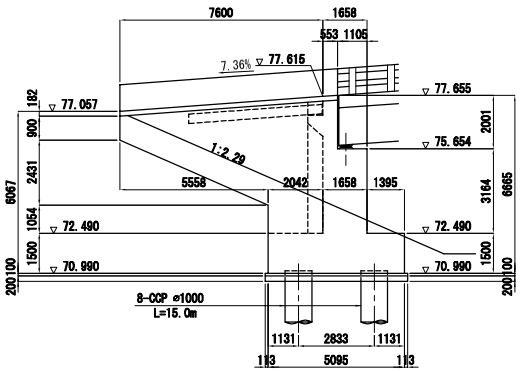
5 - 5



6 - 6



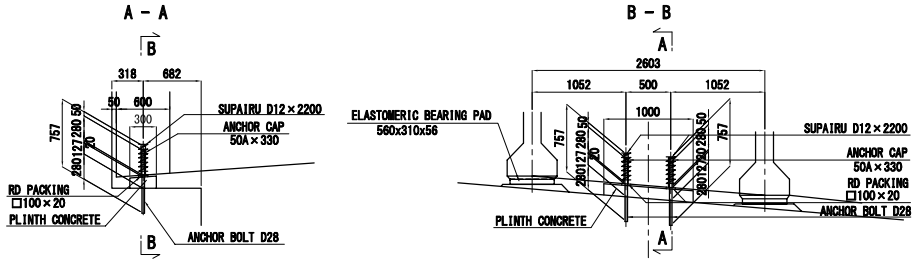
7 - 7



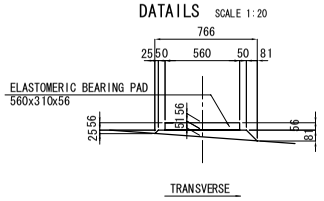
ROAD INVESTMENT DEPARTMENT MINISTRY OF PUBLIC WORKS, URBANIZATION AND HABITAT	BASIC DESIGN ON THE PROJECT FOR REHABILITATION OF BRIDGES ON ARTERIAL NATIONAL ROADS IN THE REPUBLIC OF GUINEA	JAPAN INTERNATIONAL COOPERATION AGENCY KATAHIRA & ENGINEERS INTERNATIONAL	TITLE: KAAKA BRIDGE STRUCTURE DRAWING OF A ABUTMENT(1)	SCALE: S=1:100	DRAWING No: K-9

STRUCTURE DRAWING OF A ABUTMENT (2) SCALE 1:100
(KAAKA BRIDGE)

ANCHOR BOLT SCALE 1:30

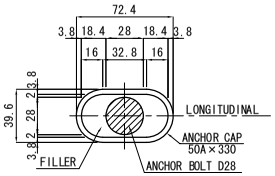


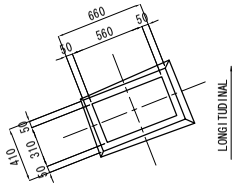
DATAILS SCALE 1:20



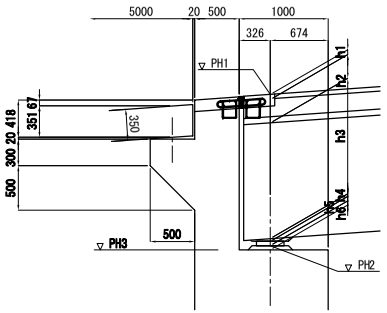
ANCHOR CAP SCALE 1:2

Mov





DATAILS SCALE 1:30



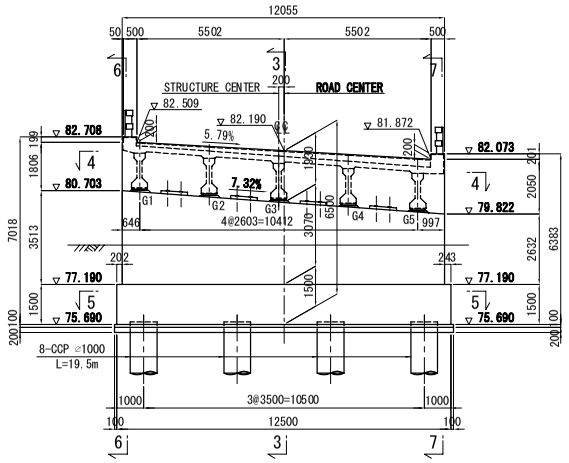
LIST OF STRUCTURE HEIGHT

	G1	G2	G3	G4	G5
PH1	78.442	78.227	78.011	77.792	77.570
h1	0.197	0.173	0.146	0.117	0.086
h2	0.270	0.270	0.270	0.270	0.270
h3	1.300	1.300	1.300	1.300	1.300
h4	0.040	0.040	0.040	0.040	0.040
h5	0.056	0.056	0.056	0.056	0.056
Σh	1.863	1.839	1.812	1.783	1.752
PH2	76.579	76.388	76.199	76.009	75.818
h6	0.051	0.051	0.051	0.051	0.051
PH3	76.528	76.337	76.148	75.958	75.767
θ	68° 34′ 37″				

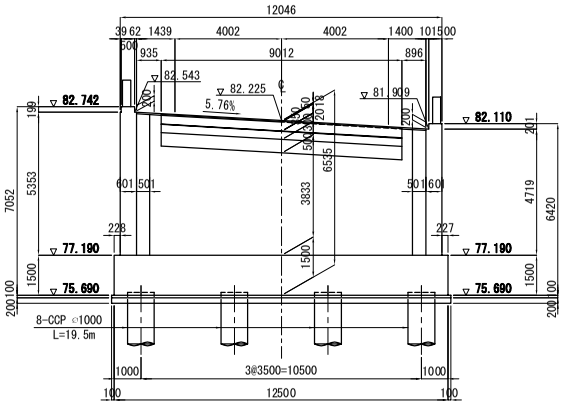
ROAD INVESTMENT DEPARTMENT MINISTRY OF PUBLIC WORKS, URBANIZATION AND HABITAT	BASIC DESIGN ON THE PROJECT FOR REHABILITATION OF BRIDGES ON ARTERIAL NATIONAL ROADS IN THE REPUBLIC OF GUINEA	JAPAN INTERNATIONAL COOPERATION AGENCY KATAHIRA & ENGINEERS INTERNATIONAL	TITLE: KAAKA BRIDGE STRUCTURE DRAWING OF A ABUTMENT(2)	SCALE: S=1:100	DRAWING No: K-10	Rv.

STRUCTURE DRAWING OF B ABUTMENT (1) SCALE 1:100
(KAAKA BRIDGE)

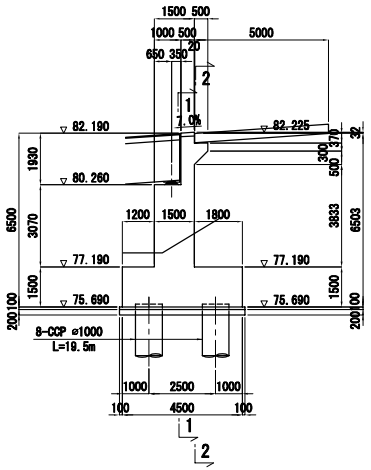
1 - 1



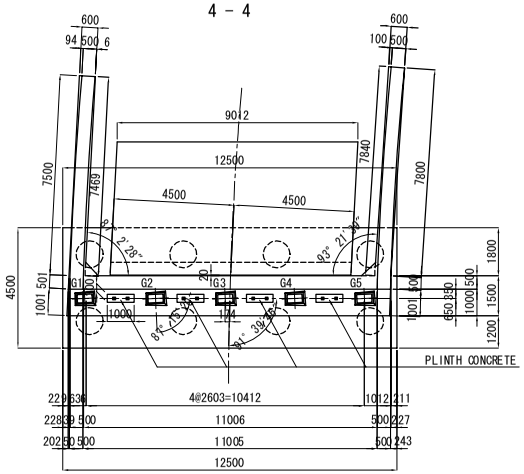
2 - 2



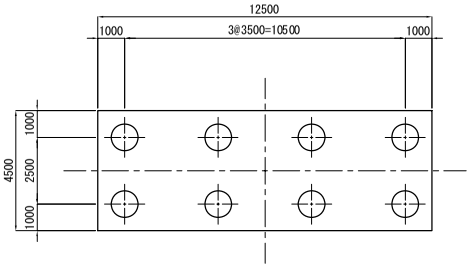
3 - 3



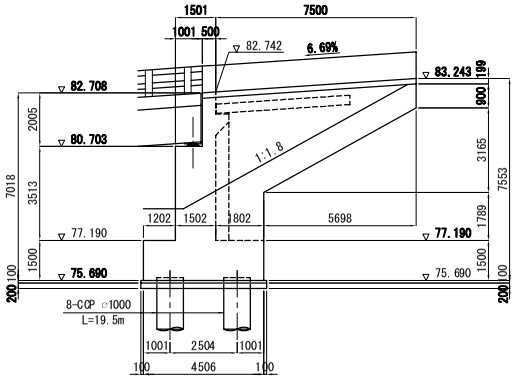
4 - 4



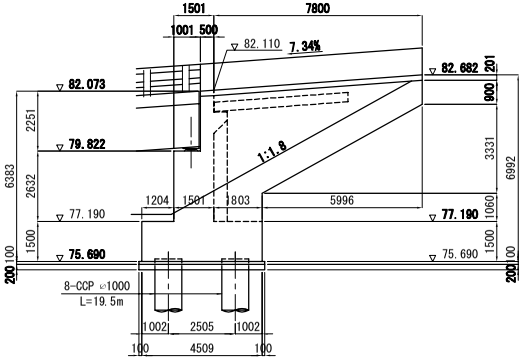
5 - 5



6 - 6



7 - 7



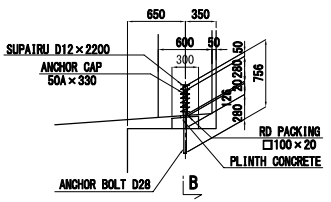
2-69

ROAD INVESTMENT DEPARTMENT MINISTRY OF PUBLIC WORKS, URBANIZATION AND HABITAT	BASIC DESIGN ON THE PROJECT FOR REHABILITATION OF BRIDGES ON ARTERIAL NATIONAL ROADS IN THE REPUBLIC OF GUINEA	JAPAN INTERNATIONAL COOPERATION AGENCY KATAHIRA & ENGINEERS INTERNATIONAL	TITLE: KAAKA BRIDGE STRUCTURE DRAWING OF B ABUTMENT (1)	SCALE: S=1:100	DRAWING No: K-11

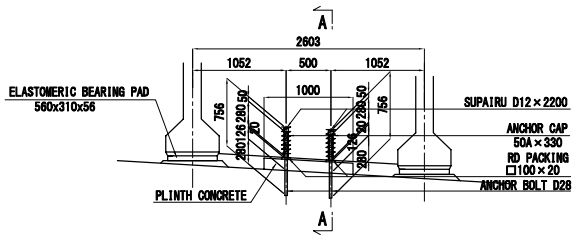
STRUCTURE DRAWING OF B ABUTMENT (2) SCALE 1:100
(KAAKA BRIDGE)

ANCHOR BOLT SCALE 1:30

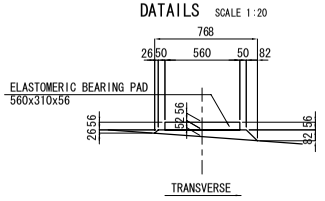
A – A



B – B

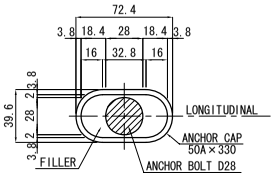


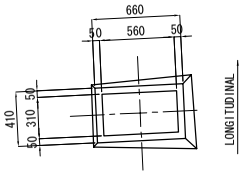
DATAILS SCALE 1:20



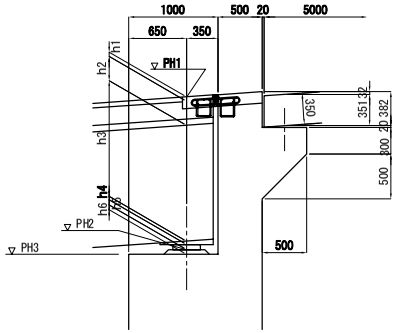
ANCHOR CAP SCALE 1:2

Mov





DATAILS SCALE 1:30



LIST OF STRUCTURE HEIGHT

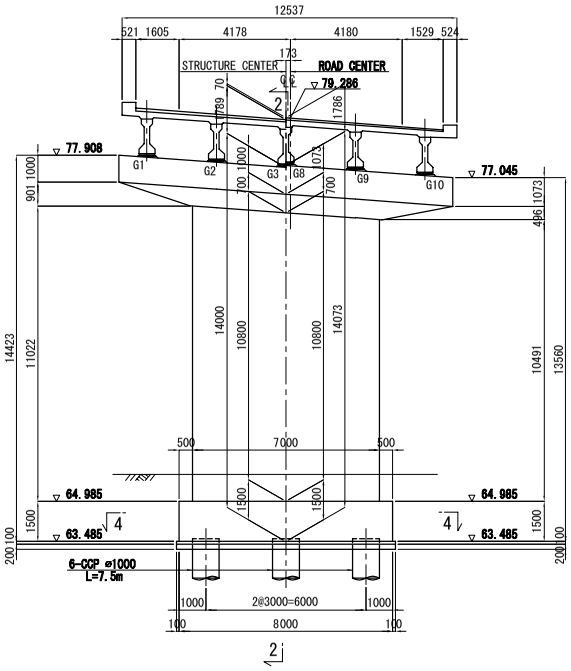
	G1	G2	G3	G4	G5
PH1	82.479	82.327	82.176	82.024	81.873
h1	0.105	0.144	0.183	0.222	0.261
h2	0.270	0.270	0.270	0.270	0.270
h3	1.300	1.300	1.300	1.300	1.300
h4	0.040	0.040	0.040	0.040	0.040
h5	0.056	0.056	0.056	0.056	0.056
Σh	1.771	1.810	1.849	1.888	1.927
PH2	80.708	80.517	80.327	80.136	79.946
h6	0.052	0.052	0.052	0.052	0.052
PH3	80.656	80.465	80.275	80.084	79.894
θ	87° 15′ 20″				

ROAD INVESTMENT DEPARTMENT MINISTRY OF PUBLIC WORKS, URBANIZATION AND HABITAT	BASIC DESIGN ON THE PROJECT FOR REHABILITATION OF BRIDGES ON ARTERIAL NATIONAL ROADS IN THE REPUBLIC OF GUINEA	JAPAN INTERNATIONAL COOPERATION AGENCY KATAHIRA & ENGINEERS INTERNATIONAL	TITLE : KAAKA BRIDGE STRUCTURE DRAWING OF B ABUTMENT (2)	SCALE : S=1:100	DRAWING No: K-12

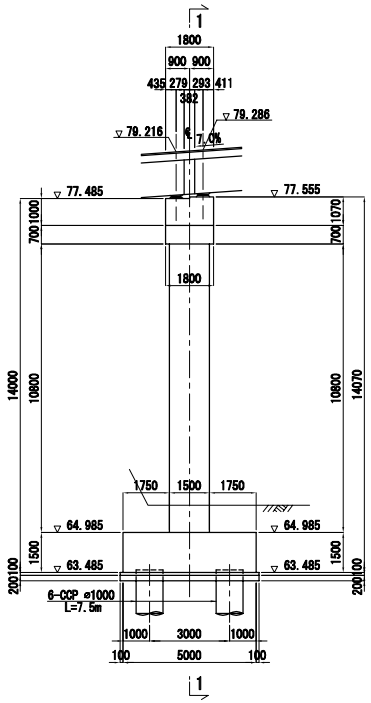
STRUCTURE DRAWING OF P1 PIER (KAAKA BRIDGE)

SCALE 1:100

1 - 1

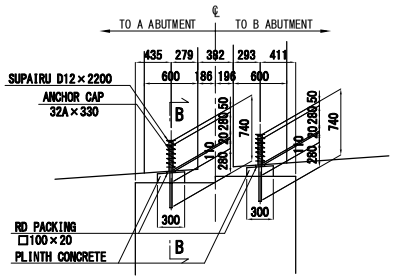


2 - 2



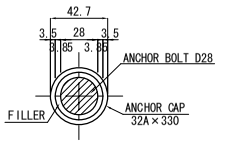
ANCHOR BOLT SCALE 1:30

A - A

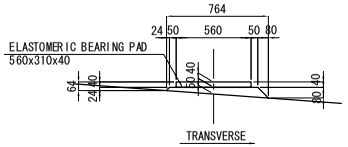


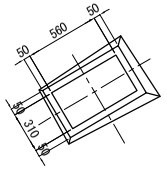
ANCHOR CAP SCALE 1:2

Fix

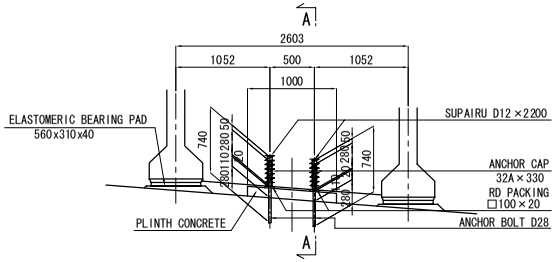


DATAILS SCALE 1:20

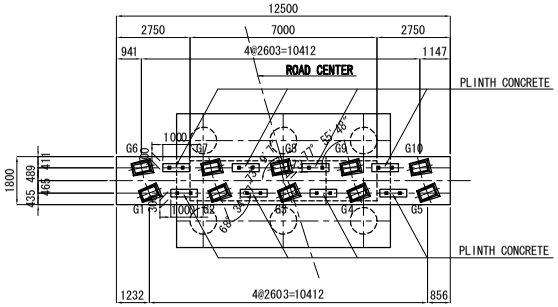




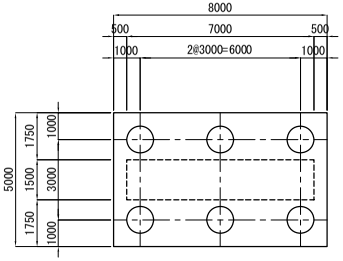
B - B



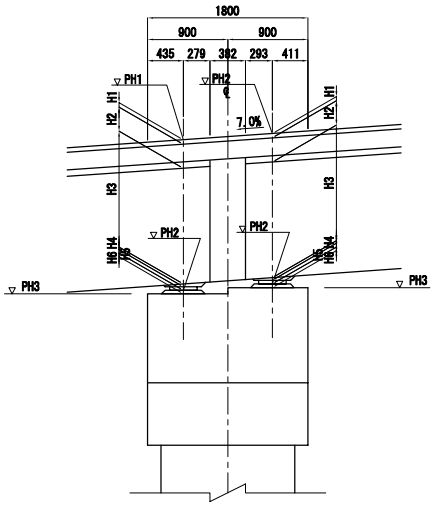
3 - 3



4 - 4



DATAILS SCALE 1:30



LIST OF STRUCTURE HEIGHT

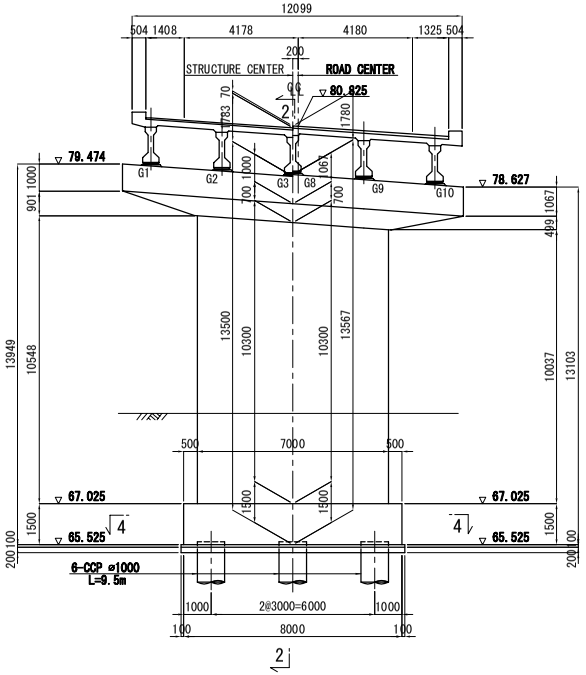
	G1	G2	G3	G4	G5
PH1	79.628	79.428	79.226	79.023	78.817
h1	0.110	0.100	0.089	0.076	0.061
h2	0.270	0.270	0.270	0.270	0.270
h3	1.300	1.300	1.300	1.300	1.300
h4	0.040	0.040	0.040	0.040	0.040
h5	0.040	0.040	0.040	0.040	0.040
Σh	1.760	1.750	1.739	1.726	1.711
PH2	77.768	77.578	77.387	77.197	77.006
h6	0.050	0.050	0.050	0.050	0.050
PH3	77.818	77.628	77.437	77.247	77.056
θ	68° 34′ 37″				
	G6	G7	G8	G9	G10
PH1	78.442	78.227	78.011	77.792	77.570
h1	0.105	0.097	0.086	0.074	0.060
h2	0.270	0.270	0.270	0.270	0.270
h3	1.300	1.300	1.300	1.300	1.300
h4	0.040	0.040	0.040	0.040	0.040
h5	0.040	0.040	0.040	0.040	0.040
Σh	1.755	1.747	1.736	1.724	1.710
PH2	77.841	77.650	77.460	77.269	77.079
h6	0.050	0.050	0.050	0.050	0.050
PH3	77.891	77.700	77.510	77.319	77.129
θ	77° 55′ 48″				

ROAD INVESTMENT DEPARTMENT MINISTRY OF PUBLIC WORKS, URBANIZATION AND HABITAT	BASIC DESIGN ON THE PROJECT FOR REHABILITATION OF BRIDGES ON ARTERIAL NATIONAL ROADS IN THE REPUBLIC OF GUINEA	JAPAN INTERNATIONAL COOPERATION AGENCY KATAHIRA & ENGINEERS INTERNATIONAL	TITLE: KAAKA BRIDGE STRUCTURE DRAWING OF P1 PIER	SCALE: S=1:100	DRAWING No: K-13

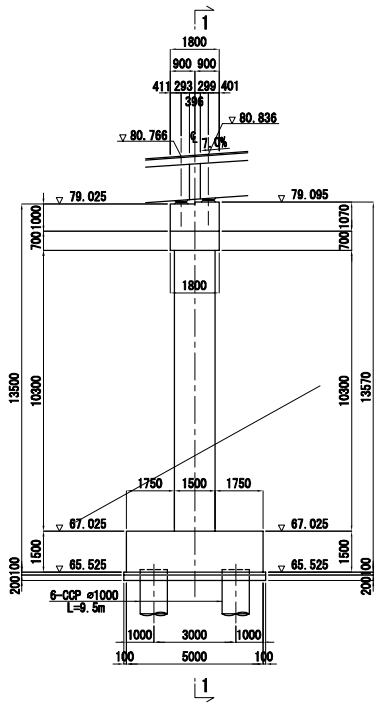
STRUCTURE DRAWING OF P2 PIER (KAAKA BRIDGE)

SCALE 1:100

1 - 1

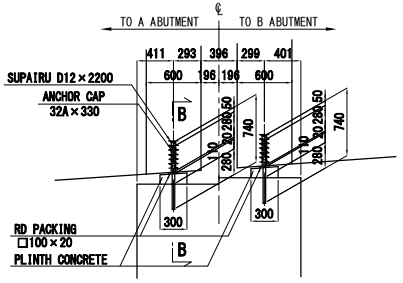


2 - 2



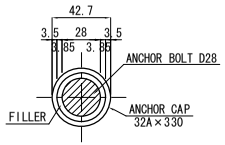
ANCHOR BOLT SCALE 1:30

A - A

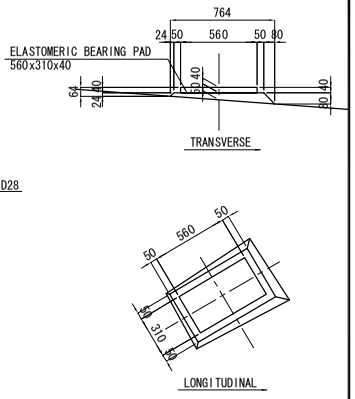


ANCHOR CAP SCALE 1:2

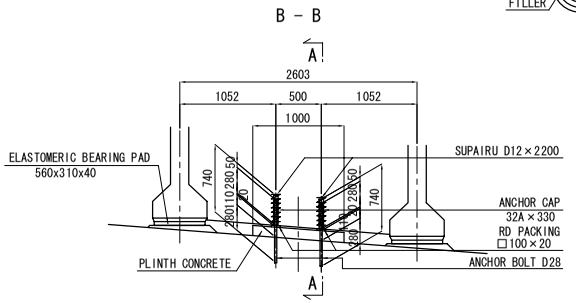
Fix



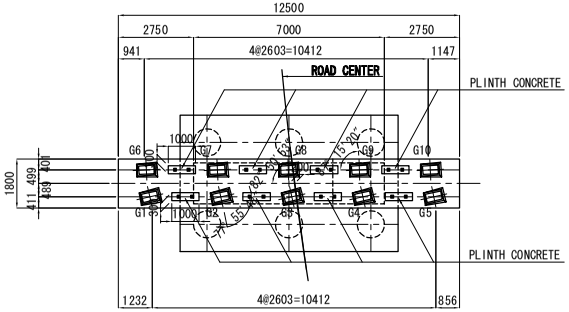
DATAILS SCALE 1:20



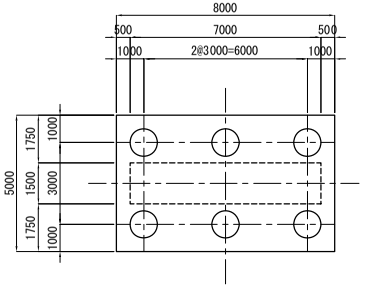
B - B



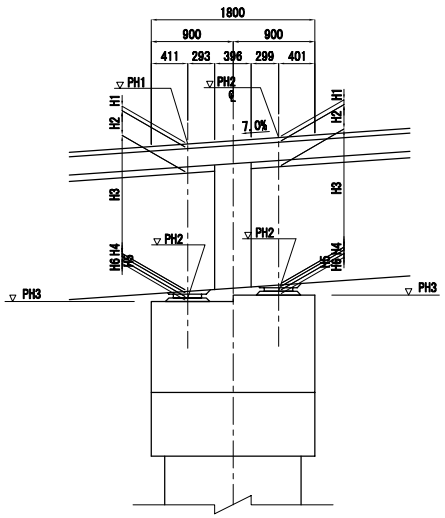
3 - 3



4 - 4



DATAILS SCALE 1:30



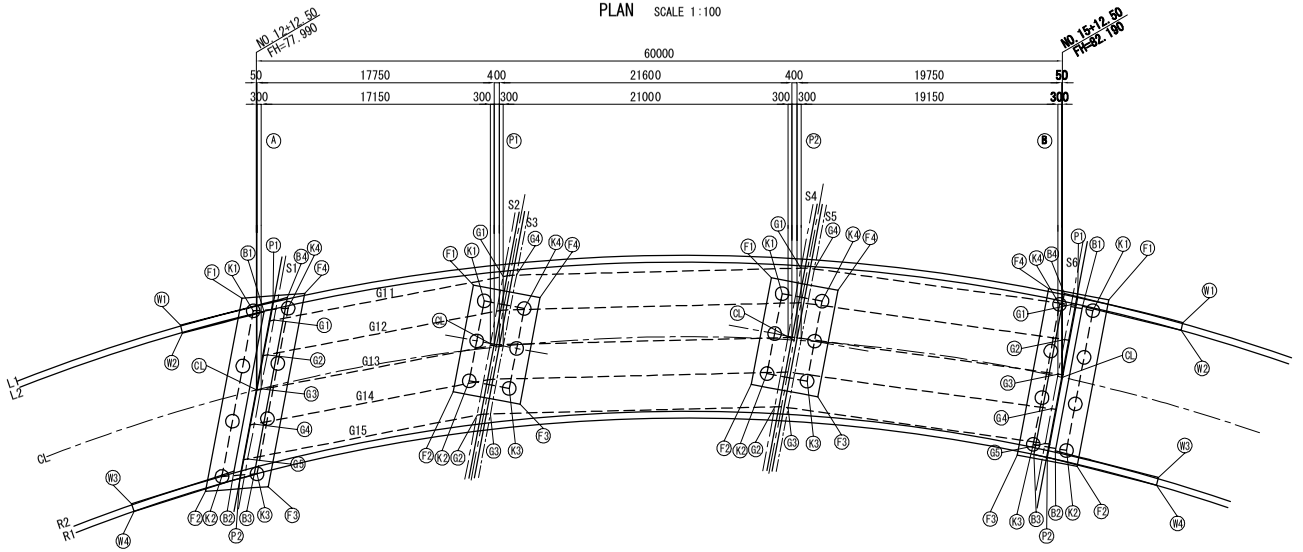
LIST OF STRUCTURE HEIGHT

	G1	G2	G3	G4	G5
PH1	81.121	80.944	80.766	80.588	80.408
h1	0.057	0.071	0.083	0.095	0.106
h2	0.270	0.270	0.270	0.270	0.270
h3	1.300	1.300	1.300	1.300	1.300
h4	0.040	0.040	0.040	0.040	0.040
h5	0.040	0.040	0.040	0.040	0.040
Σ h	1.707	1.721	1.733	1.745	1.756
PH2	79.414	79.223	79.033	78.843	78.652
h6	0.050	0.050	0.050	0.050	0.050
PH3	79.364	79.173	78.983	78.793	78.602
θ	77° 55′ 48″				
	G6	G7	G8	G9	G10
PH1	81.189	81.013	80.836	80.659	80.481
h1	0.057	0.072	0.086	0.099	0.111
h2	0.270	0.270	0.270	0.270	0.270
h3	1.300	1.300	1.300	1.300	1.300
h4	0.040	0.040	0.040	0.040	0.040
h5	0.040	0.040	0.040	0.040	0.040
Σ h	1.707	1.722	1.736	1.749	1.761
PH2	79.482	79.291	79.100	78.910	78.720
h6	0.050	0.050	0.050	0.050	0.050
PH3	79.432	79.241	79.050	78.860	78.670
θ	87° 15′ 20″				

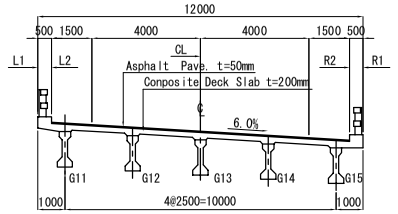
ROAD INVESTMENT DEPARTMENT MINISTRY OF PUBLIC WORKS, URBANIZATION AND HABITAT	BASIC DESIGN ON THE PROJECT FOR REHABILITATION OF BRIDGES ON ARTERIAL NATIONAL ROADS IN THE REPUBLIC OF GUINEA	JAPAN INTERNATIONAL COOPERATION AGENCY KATAHIRA & ENGINEERS INTERNATIONAL	TITLE: KAAKA BRIDGE STRUCTURE DRAWING OF P2 PIER	SCALE: S=1:100	DRAWING No: K-14

COORDINATES OF SUBSTRUCTURE
(KAAKA BRIDGE)

PLAN SCALE 1:100

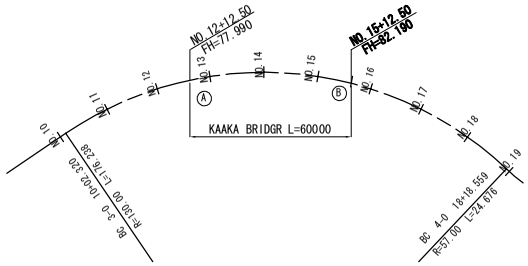


BRIDGE CROSS SECTION SCALE 1:100



LINEAR CONSTITUENT

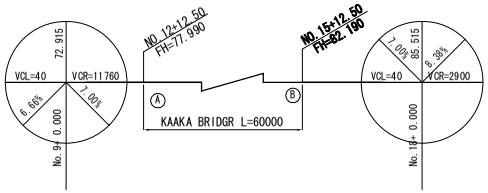
PLAN LINEAR CONSTITUENT



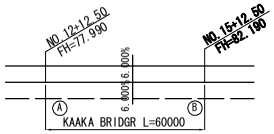
COORDINATES AND ELEVATION OF BENCH MARKS

SYMBOL	X-COORDINATE (m)	Y-COORDINATE (m)
BC 3-0	212.887	614.272
BC 4-0	192.513	452.500

VERTICAL CONSTITUENT



CROSS SLOPE



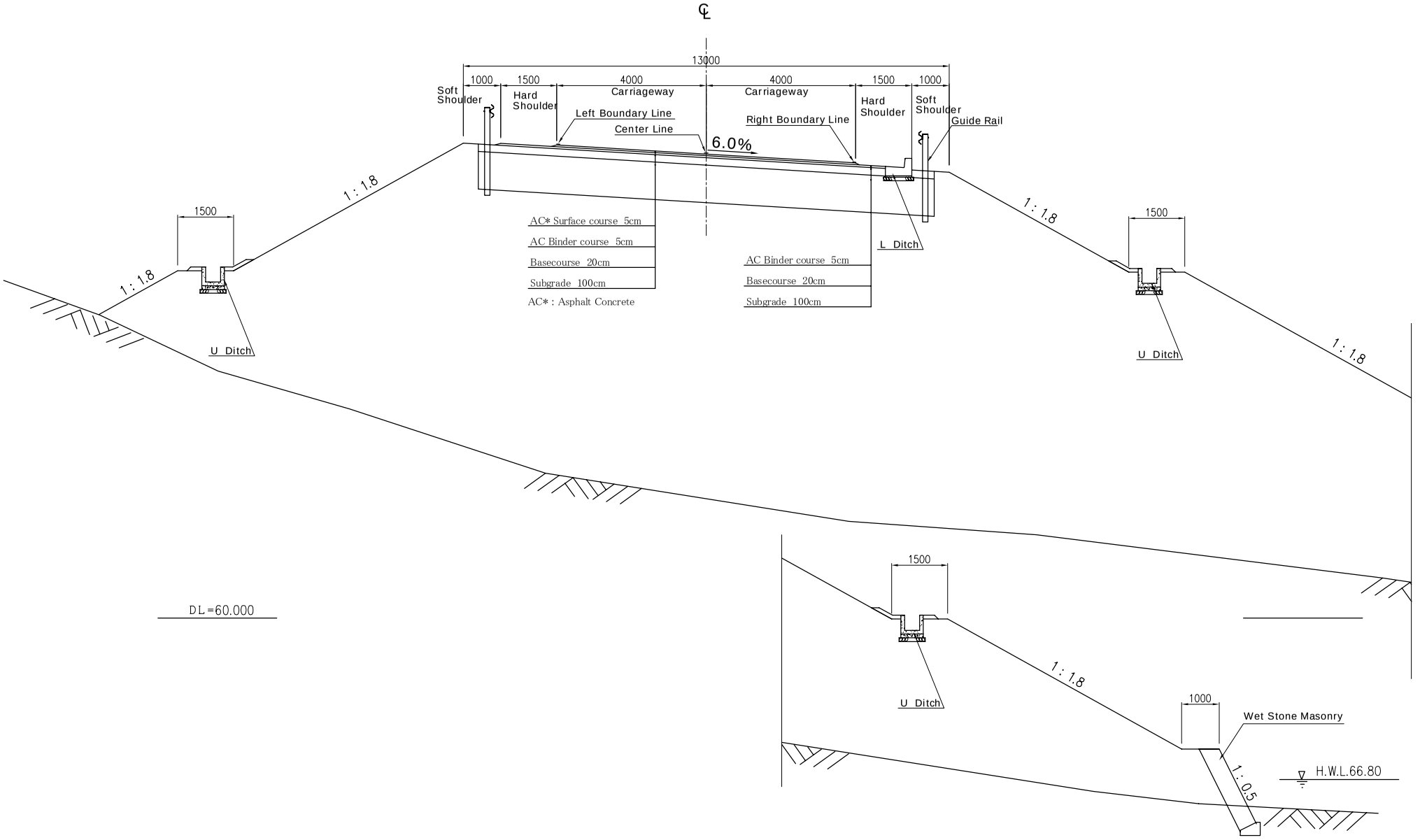
COORDINATES OF STRUCTURE

ITEM	MARK	A		P1		P2		B	
		X	Y	X	Y	X	Y	X	Y
CENTER LINE	CL	184.3137	573.4003	178.1820	556.1921	173.9447	534.9308	173.2952	514.9611
BUILDING FRAME	B1	178.5456	573.8116	- - -	- - -	- - -	- - -	167.8777	514.3776
	B2	190.5136	573.9957	- - -	- - -	- - -	- - -	178.7198	514.5445
	B3	190.4553	572.4947	- - -	- - -	- - -	- - -	179.1990	516.0520
	B4	178.0273	572.3034	- - -	- - -	- - -	- - -	167.1764	515.8670
PARAPET	P1	177.6547	573.2978	- - -	- - -	- - -	- - -	167.2434	514.8679
	P2	190.9341	573.5022	- - -	- - -	- - -	- - -	179.2803	515.0532
FOOTING	F1	177.8255	575.6007	173.9715	558.9276	169.7067	537.3659	167.0772	512.5651
	F2	192.3238	575.8238	181.9706	559.0507	177.7058	537.4890	179.5757	512.7575
	F3	191.1874	571.3058	182.0475	554.0513	177.7827	532.4896	179.5064	517.2569
	F4	176.6891	571.0827	174.0484	553.9282	169.7837	532.3665	167.0079	517.0646
WING	W1	180.5612	579.7237	- - -	- - -	- - -	- - -	167.7793	506.8852
	W2	181.1079	579.4765	- - -	- - -	- - -	- - -	168.3780	506.9254
	W3	194.1458	581.0353	- - -	- - -	- - -	- - -	179.3565	506.7308
	W4	194.6790	580.7602	- - -	- - -	- - -	- - -	179.9545	506.7795
SHOE	G1	179.0181	572.9929	172.9796	556.8776	168.6364	535.3381	167.9013	515.2277
	G2	181.6208	573.0330	183.3903	557.0378	179.0471	535.4983	170.5039	515.2678
	G3	184.2235	573.0730	183.1178	556.0791	178.9338	534.5081	173.1066	515.3078
	G4	186.8262	573.1131	172.7071	555.9189	168.5231	534.3479	175.7093	515.3479
	G5	189.4288	573.1531	- - -	- - -	- - -	- - -	178.3120	515.3879
PILES	K1	178.6081	574.6126	174.9868	557.9431	170.7220	536.3814	168.0616	513.5804
	K2	191.5586	574.8119	180.9861	558.0355	176.7213	536.4737	178.5604	513.7419
	K3	190.4048	572.2939	181.0322	555.0358	176.7674	533.4741	178.5219	516.2417
	K4	177.9768	572.1026	175.0329	554.9435	170.7682	533.3817	168.0232	516.0801

ROAD INVESTMENT DEPARTMENT MINISTRY OF PUBLIC WORKS, URBANIZATION AND HABITAT	BASIC DESIGN ON THE PROJECT FOR REHABILITATION OF BRIDGES ON ARTERIAL NATIONAL ROADS IN THE REPUBLIC OF GUINEA	JAPAN INTERNATIONAL COOPERATION AGENCY KATAHIRA & ENGINEERS INTERNATIONAL	TITLE: KAAKA BRIDGE COORDINATES OF SUBSTRUCTURE	SCALE: S=1:100	DRAWING No: K-15

TYPICAL CROSS SECTION OF ROAD

(KAAKA BRIDGE)

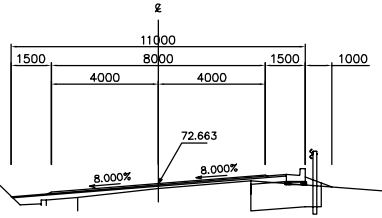


ROAD INVESTMENT DEPARTMENT MINISTRY OF PUBLIC WORKS, URBANIZATION AND HABITAT	BASIC DESIGN ON THE PROJECT FOR REHABILITATION OF BRIDGES ON ARTERIAL NATIONAL ROADS IN THE REPUBLIC OF GUINEA	JAPAN INTERNATIONAL COOPERATION AGENCY KATAHIRA & ENGINEERS INTERNATIONAL	TITLE: KAAKA BRIDGE TYPICAL CROSS SECTION OF ROAD	SCALE: S=1:50	DRAWING No: K-16

CROSS SECTIONS OF ROAD (1)

(KAAKA BRIDGE)

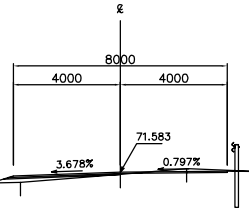
EC 2-0(NO.8+16.057)
FH=72.663
GH=72.48



BA	0.14
CA	2.44

GL=65.00

NO.8+00.000
FH=71.583
GH=71.50



BEGINING POINT OF PROJECT

BA	0.00
CA	0.35

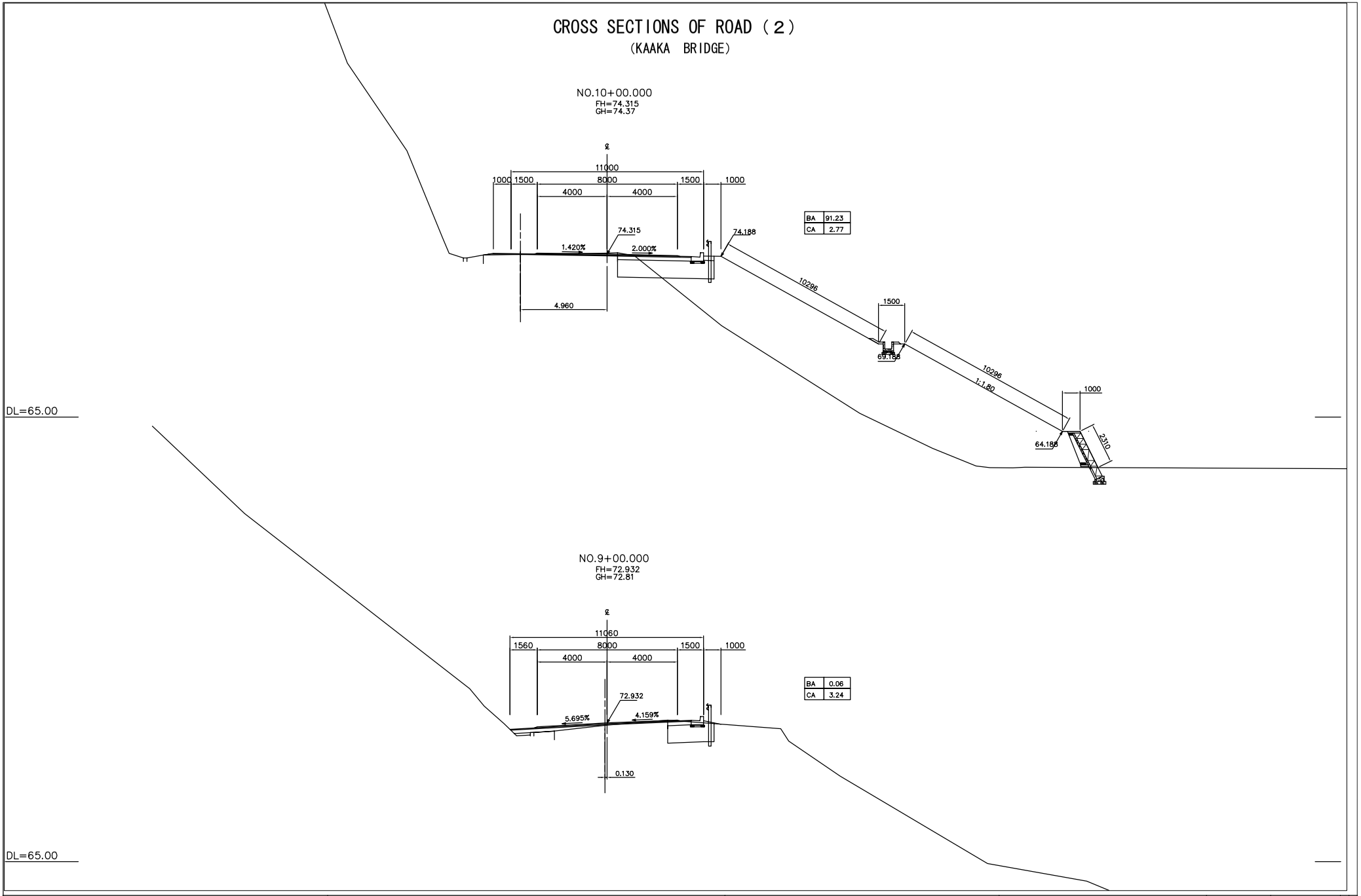
GL=65.00

2-75

ROAD INVESTMENT DEPARTMENT MINISTRY OF PUBLIC WORKS, URBANIZATION AND HABITAT	BASIC DESIGN ON THE PROJECT FOR REHABILITATION OF BRIDGES ON ARTERIAL NATIONAL ROADS IN THE REPUBLIC OF GUINEA	JAPAN INTERNATIONAL COOPERATION AGENCY KATAHIRA & ENGINEERS INTERNATIONAL	TITLE: KAAKA BRIDGE CROSS SECTIONS OF ROAD (1) (NO. 8+0.00 - NO. 8+16.075)	SCALE: S=1:100	DRAWING No: K-17

CROSS SECTIONS OF ROAD (2)

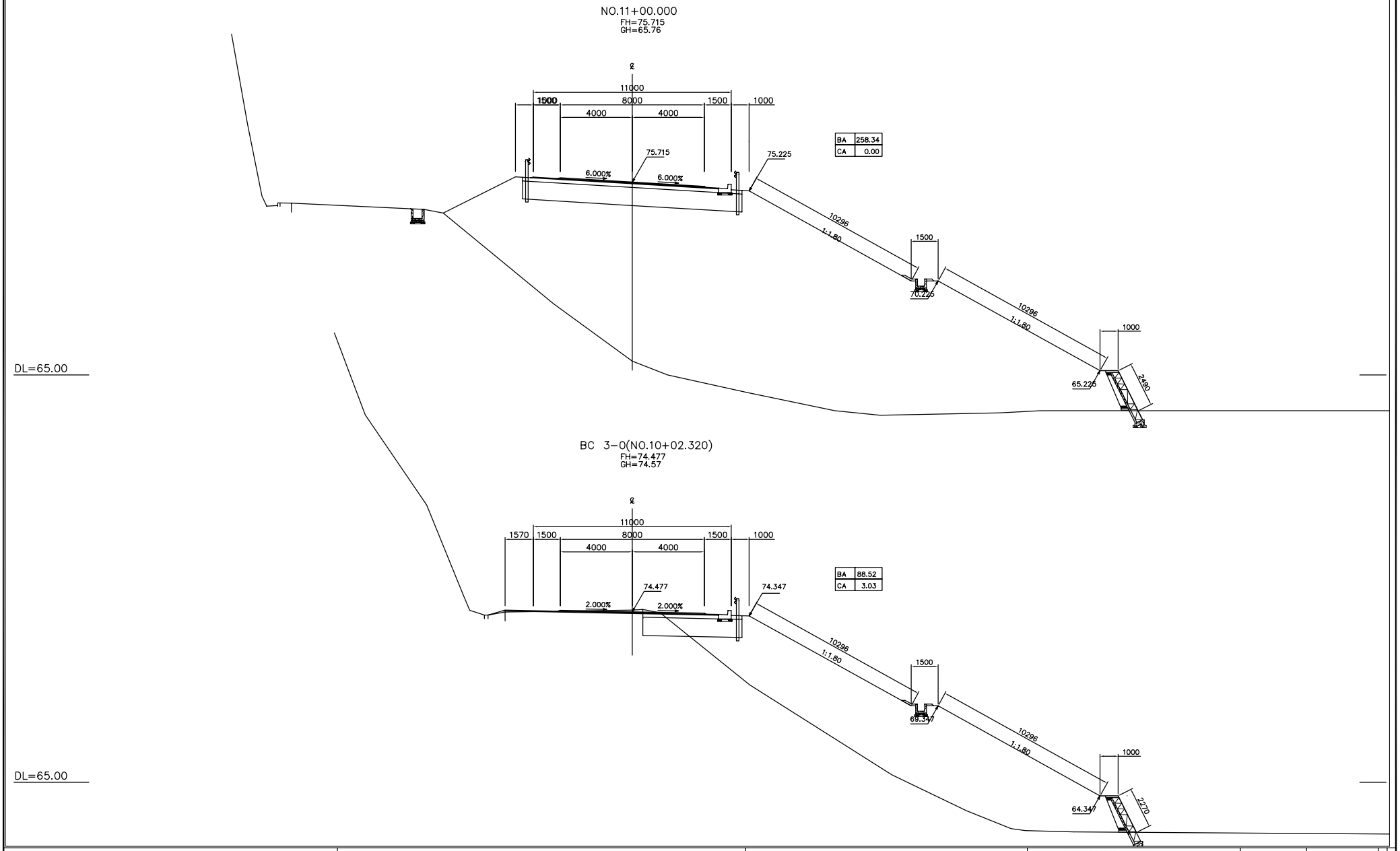
(KAAKA BRIDGE)



ROAD INVESTMENT DEPARTMENT MINISTRY OF PUBLIC WORKS, URBANIZATION AND HABITAT	BASIC DESIGN ON THE PROJECT FOR REHABILITATION OF BRIDGES ON ARTERIAL NATIONAL ROADS IN THE REPUBLIC OF GUINEA	JAPAN INTERNATIONAL COOPERATION AGENCY KATAHIRA & ENGINEERS INTERNATIONAL	TITLE: KAAKA BRIDGE CROSS SECTIONS OF ROAD (2) (NO. 9+0. 00 – NO. 10+0. 00)	SCALE: S=1:100	DRAWING No: K-18

CROSS SECTIONS OF ROAD (3)

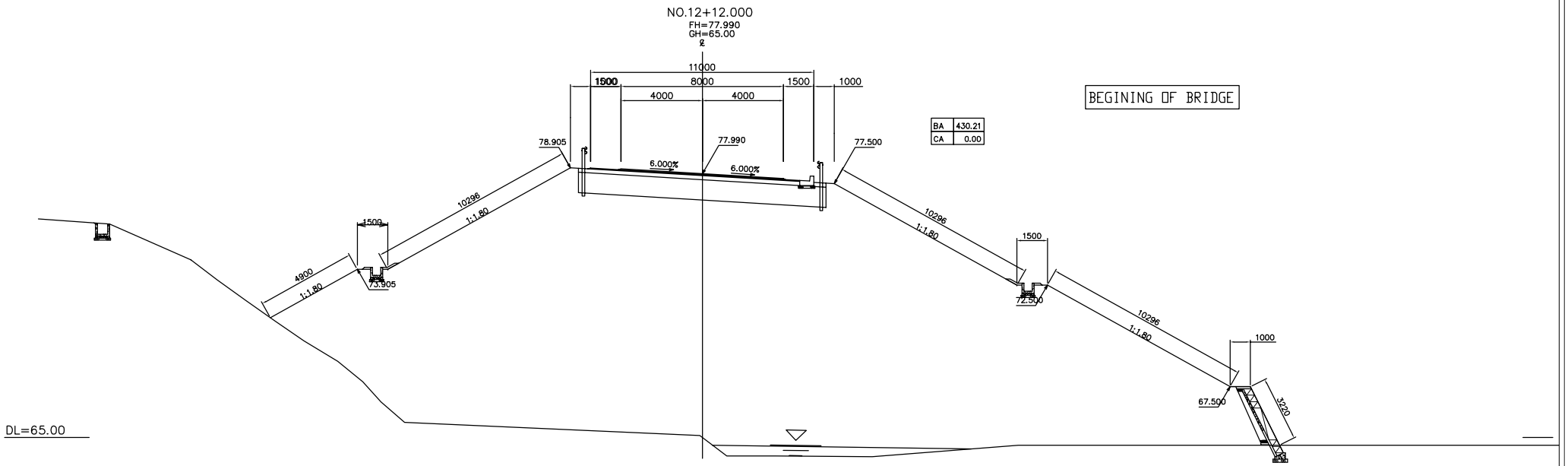
(KAAKA BRIDGE)

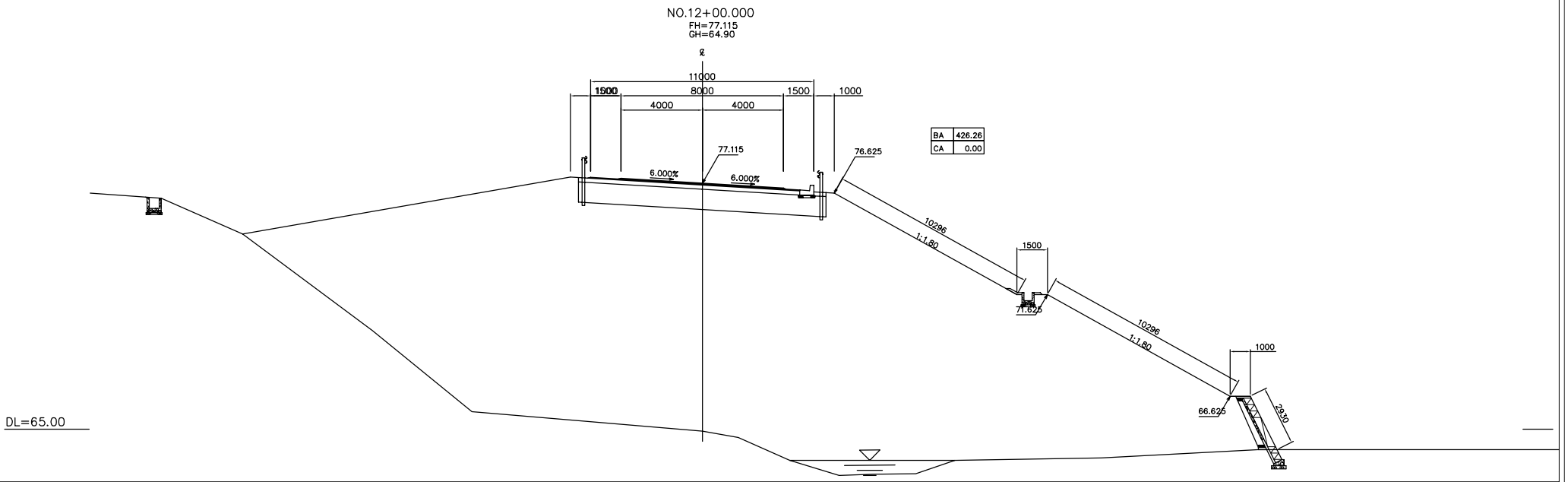


ROAD INVESTMENT DEPARTMENT MINISTRY OF PUBLIC WORKS, URBANIZATION AND HABITAT	BASIC DESIGN ON THE PROJECT FOR REHABILITATION OF BRIDGES ON ARTERIAL NATIONAL ROADS IN THE REPUBLIC OF GUINEA	JAPAN INTERNATIONAL COOPERATION AGENCY KATAHIRA & ENGINEERS INTERNATIONAL	TITLE: KAAKA BRIDGE CROSS SECTIONS OF ROAD (3) (NO. 10+2. 32 - NO. 11+0. 00)	SCALE: S=1:100	DRAWING No: K-19 Rv.

CROSS SECTIONS OF ROAD (4)

(KAAKA BRIDGE)

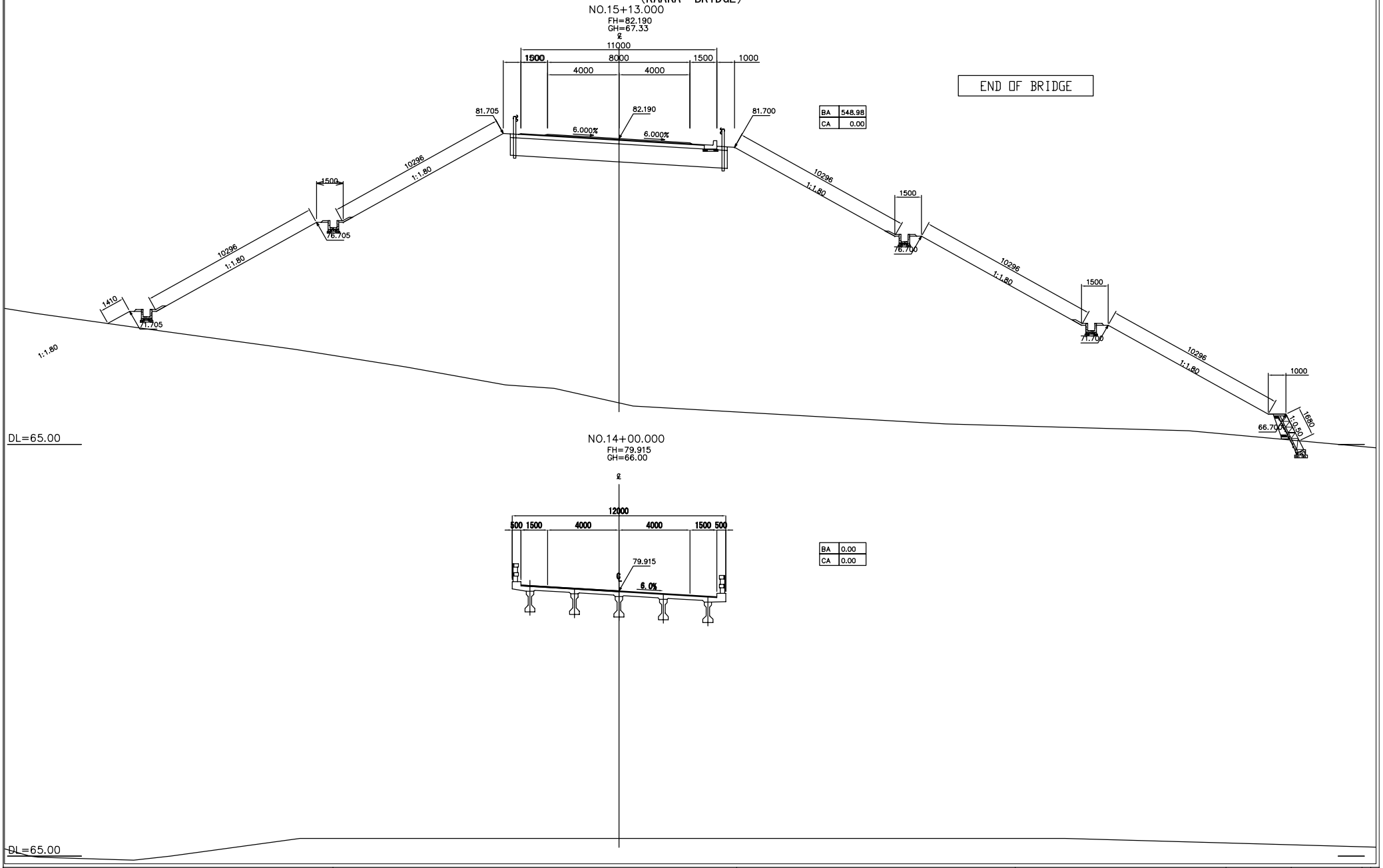




ROAD INVESTMENT DEPARTMENT MINISTRY OF PUBLIC WORKS, URBANIZATION AND HABITAT	BASIC DESIGN ON THE PROJECT FOR REHABILITATION OF BRIDGES ON ARTERIAL NATIONAL ROADS IN THE REPUBLIC OF GUINEA	JAPAN INTERNATIONAL COOPERATION AGENCY KATAHIRA & ENGINEERS INTERNATIONAL	TITLE: KAAKA BRIDGE CROSS SECTIONS OF ROAD (4) (NO. 12+0. 00 – NO. 12+12. 00)	SCALE: S=1:100	DRAWING No: K-20

CROSS SECTIONS OF ROAD (5)

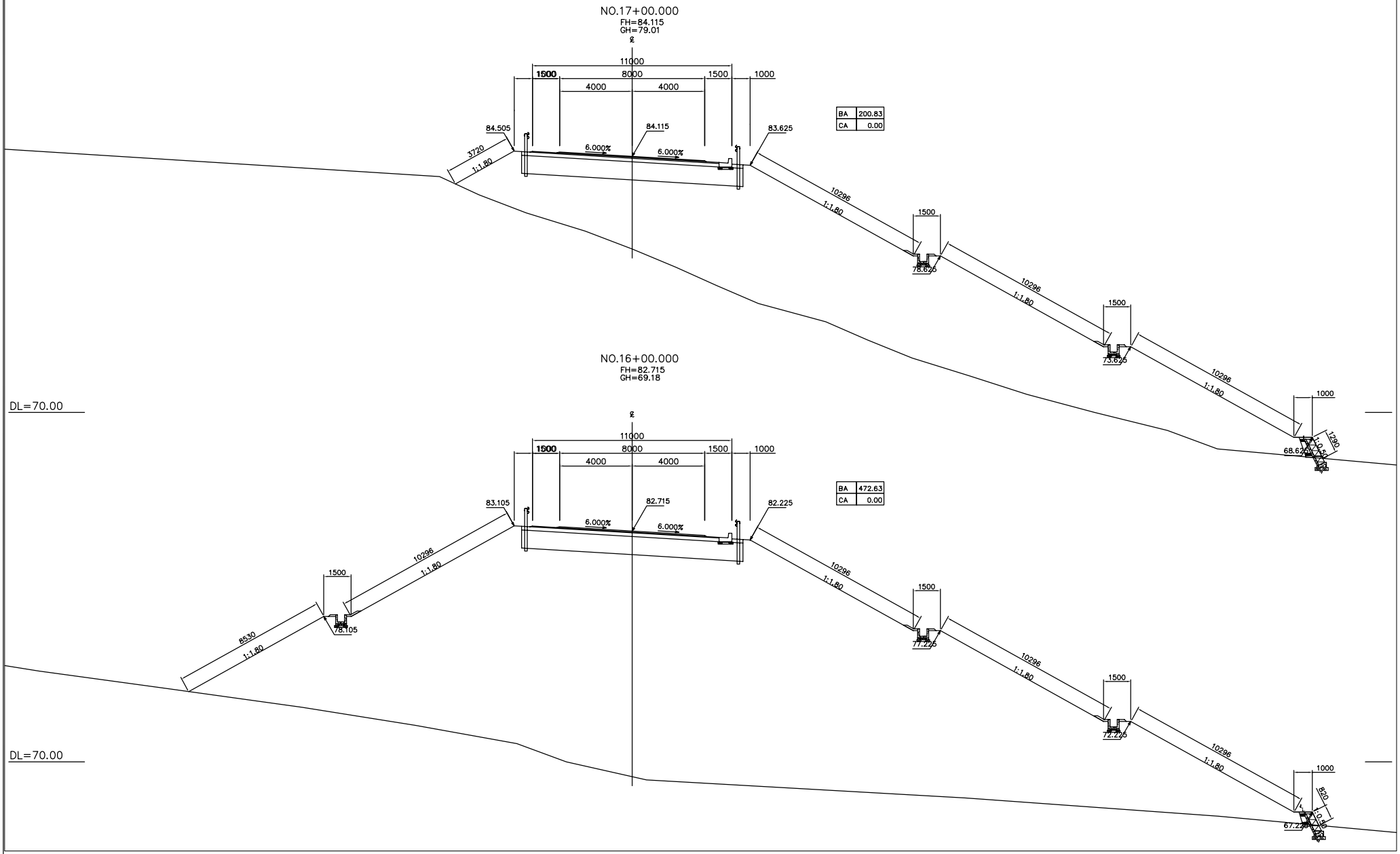
(KAAKA BRIDGE)



ROAD INVESTMENT DEPARTMENT MINISTRY OF PUBLIC WORKS, URBANIZATION AND HABITAT	BASIC DESIGN ON THE PROJECT FOR REHABILITATION OF BRIDGES ON ARTERIAL NATIONAL ROADS IN THE REPUBLIC OF GUINEA	JAPAN INTERNATIONAL COOPERATION AGENCY KATAHIRA & ENGINEERS INTERNATIONAL	TITLE: KAAKA BRIDGE CROSS SECTIONS OF ROAD (5) (NO.14+0.00 – NO.15+13.00)	SCALE: S=1:100	DRAWING No: K-21	Rv.

CROSS SECTIONS OF ROAD (6)

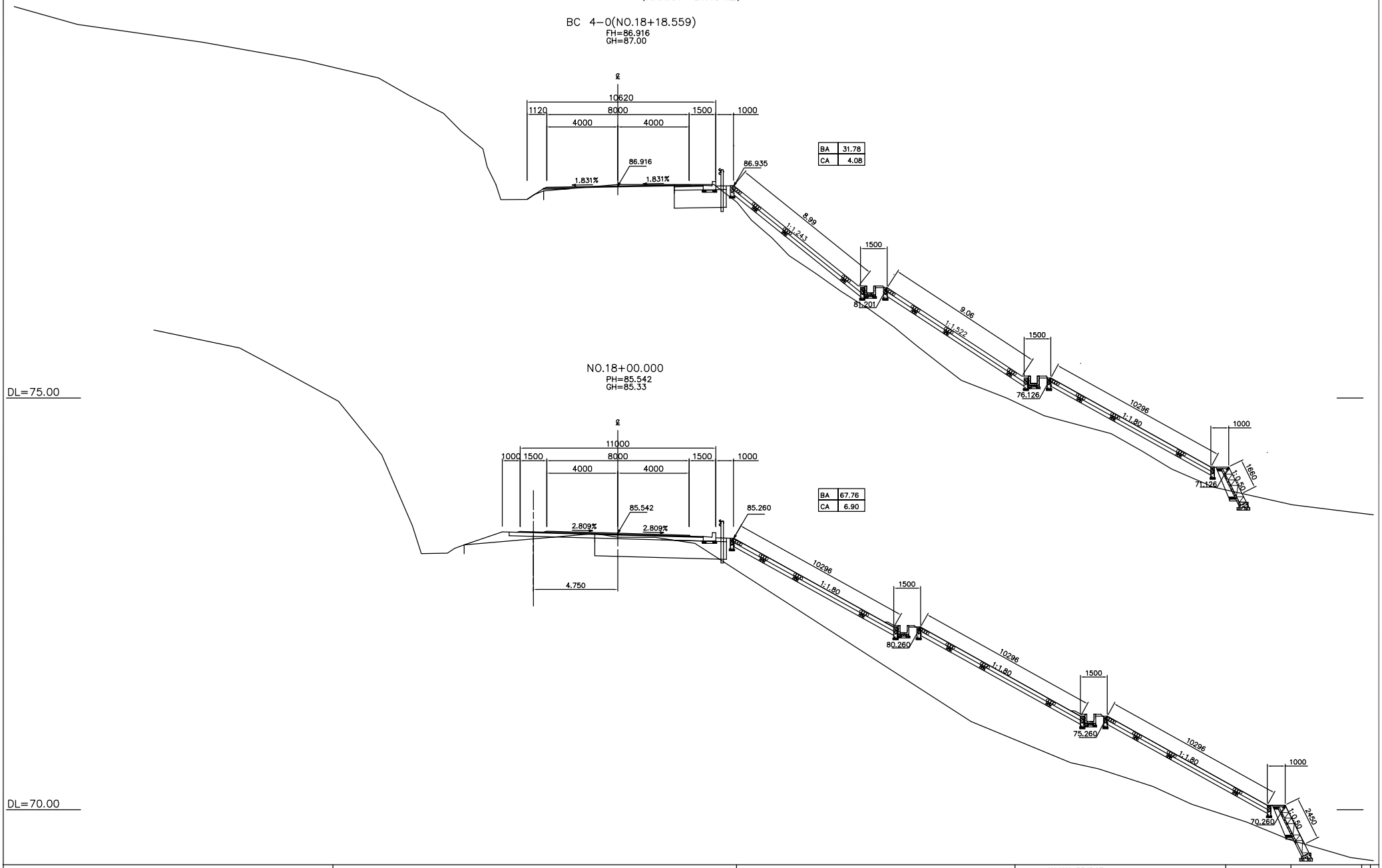
(KAAKA BRIDGE)



ROAD INVESTMENT DEPARTMENT MINISTRY OF PUBLIC WORKS, URBANIZATION AND HABITAT	BASIC DESIGN ON THE PROJECT FOR REHABILITATION OF BRIDGES ON ARTERIAL NATIONAL ROADS IN THE REPUBLIC OF GUINEA	JAPAN INTERNATIONAL COOPERATION AGENCY KATAHIRA & ENGINEERS INTERNATIONAL	TITLE: KAAKA BRIDGE CROSS SECTIONS OF ROAD (6) (NO.16+0.00 - NO.17+0.00)	SCALE: S=1:100	DRAWING No: K-22

CROSS SECTIONS OF ROAD (7)

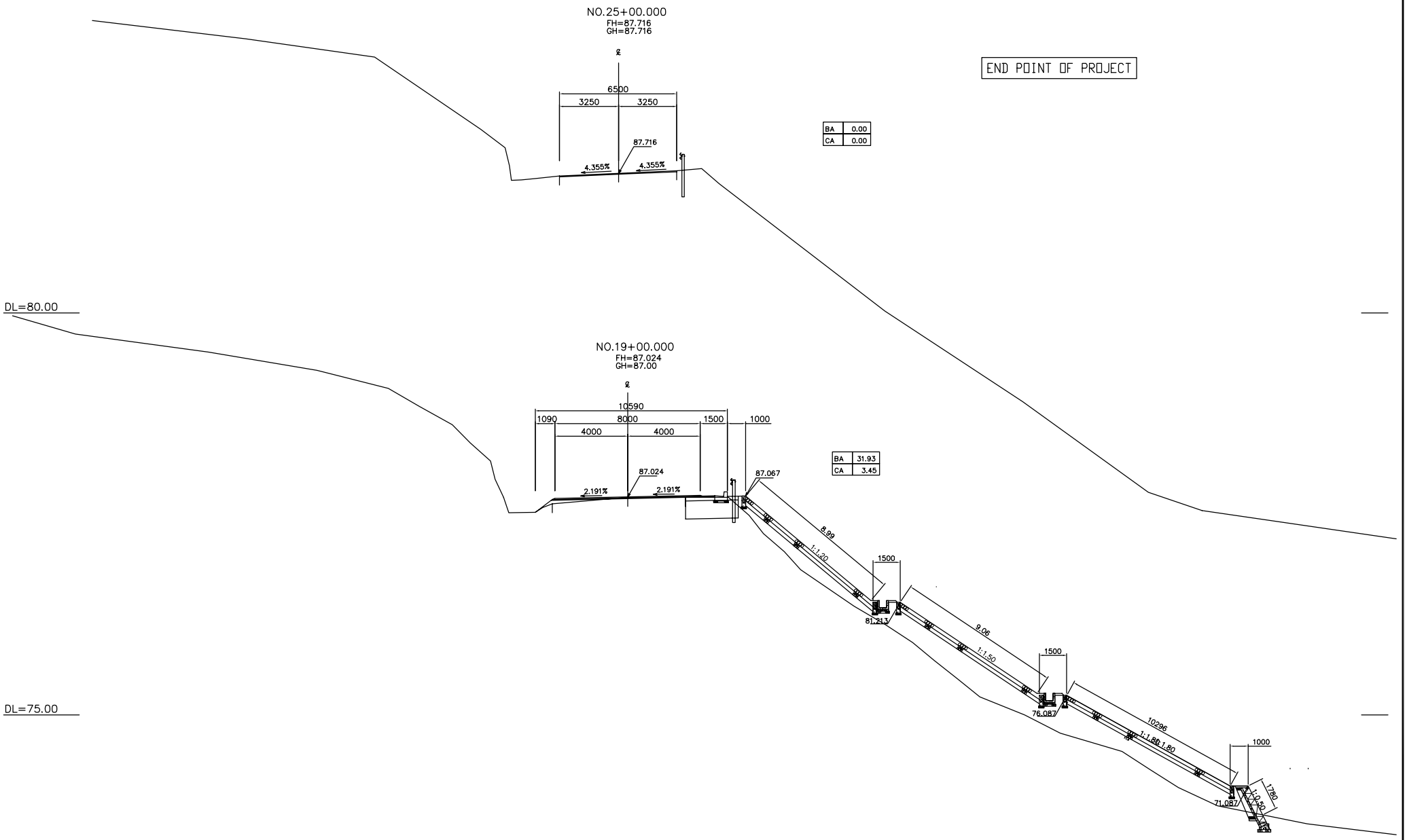
(KAAKA BRIDGE)



ROAD INVESTMENT DEPARTMENT MINISTRY OF PUBLIC WORKS, URBANIZATION AND HABITAT	BASIC DESIGN ON THE PROJECT FOR REHABILITATION OF BRIDGES ON ARTERIAL NATIONAL ROADS IN THE REPUBLIC OF GUINEA	JAPAN INTERNATIONAL COOPERATION AGENCY KATAHIRA & ENGINEERS INTERNATIONAL	TITLE: KAAKA BRIDGE CROSS SECTIONS OF ROAD (7) (NO.18+0.00 - NO.18+18.559)	SCALE: S=1:100	DRAWING No: K-23

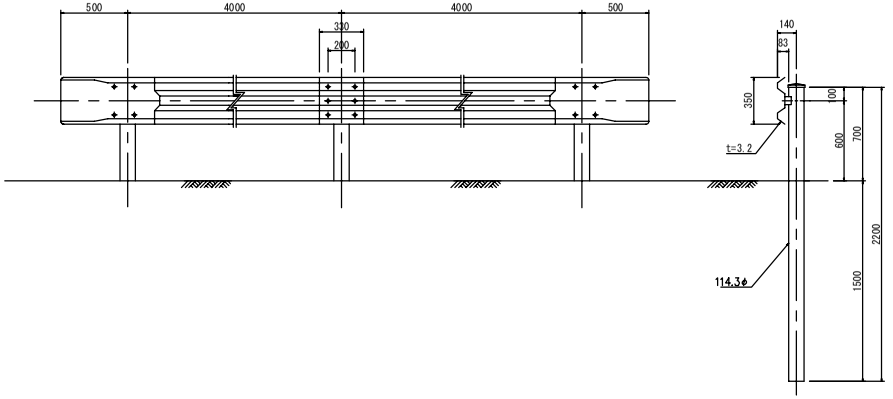
CROSS SECTIONS OF ROAD (8)

(KAAKA BRIDGE)



ROAD INVESTMENT DEPARTMENT MINISTRY OF PUBLIC WORKS, URBANIZATION AND HABITAT	BASIC DESIGN ON THE PROJECT FOR REHABILITATION OF BRIDGES ON ARTERIAL NATIONAL ROADS IN THE REPUBLIC OF GUINEA	JAPAN INTERNATIONAL COOPERATION AGENCY KATAHIRA & ENGINEERS INTERNATIONAL	TITLE: KAAKA BRIDGE CROSS SECTIONS OF ROAD (8) (NO.19+0.00 - NO.25+0.00)	SCALE: S=1:100	DRAWING No: K-24

GUARDRALL AND BANK PROTECTION
(KAAKA BRIDGE)

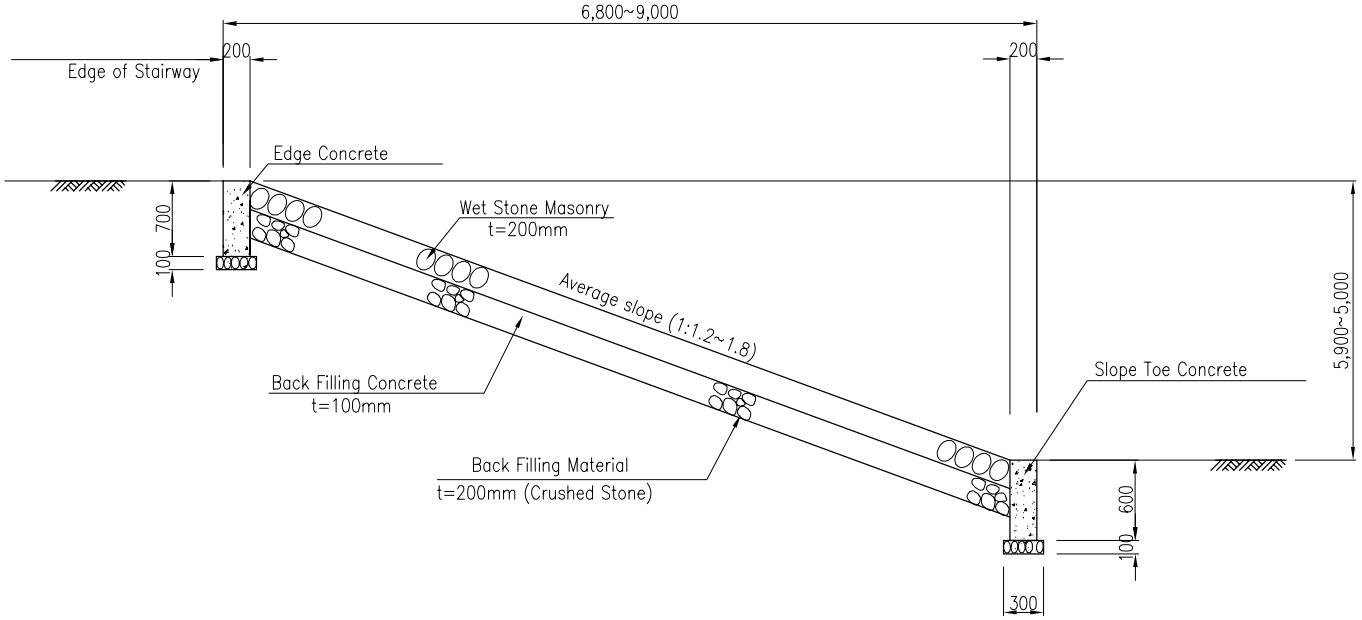


GUIDE RAIL Scale 1:20

FORM	SPAN mm	POST mm	BEAM mm	WEIGHT/ONE kg	REMARKS
Gr-B-4E	4000	114.3φX4.5X2200	3.2X350X4330	19.4	FOR SOIL

SCHEDULED LIST OF GUIDE RAIL

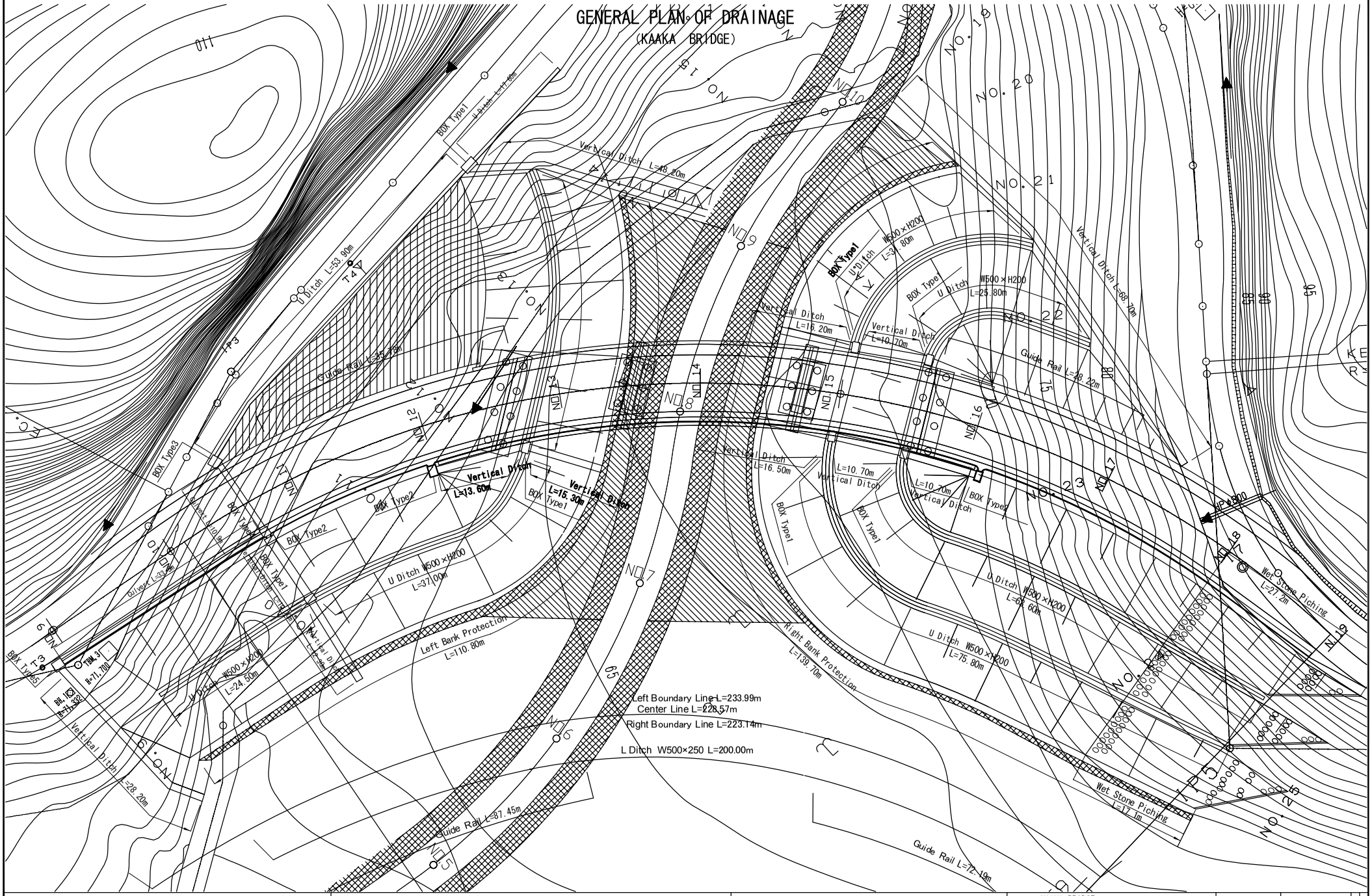
LEFT SIDE			RIGHT SIDE		
STATION	LENGTH (m)	Number (Nos.)	STATION	LENGTH (m)	Number (Nos.)
11+0.0 to 17+0.0	64.0	16	8+0.0 to 25+0.0	159.6	40
TOTAL LENGTH(Left + Right) =64.0+159.6 = 123.6m					



BANK PROTECTION Scale 1:25

ROAD INVESTMENT DEPARTMENT MINISTRY OF PUBLIC WORKS, URBANIZATION AND HABITAT	BASIC DESIGN ON THE PROJECT FOR REHABILITATION OF BRIDGES ON ARTERIAL NATIONAL ROADS IN THE REPUBLIC OF GUINEA	JAPAN INTERNATIONAL COOPERATION AGENCY KATAHIRA & ENGINEERS INTERNATIONAL	TITLE: KAAKA BRIDGE GUARDRALL AND BANK PROTECTION	SCALE: AS SHOWN	DRAWING No: K-25	Rv.

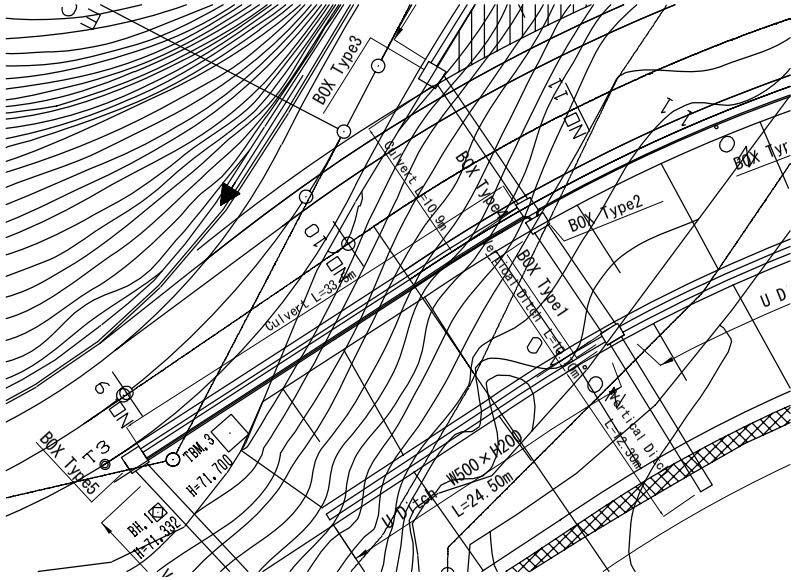
GENERAL PLAN OF DRAINAGE
(KAAKA BRIDGE)



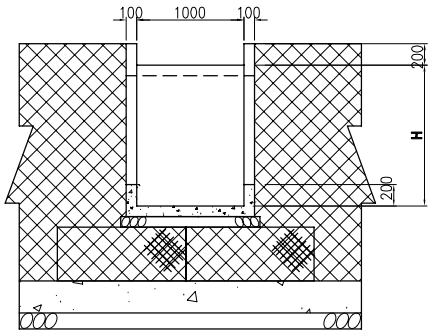
ROAD INVESTMENT DEPARTMENT MINISTRY OF PUBLIC WORKS, URBANIZATION AND HABITAT	BASIC DESIGN ON THE PROJECT FOR REHABILITATION OF BRIDGES ON ARTERIAL NATIONAL ROADS IN THE REPUBLIC OF GUINEA	JAPAN INTERNATIONAL COOPERATION AGENCY KATAHIRA & ENGINEERS INTERNATIONAL	TITLE: KAAKA BRIDGE GENERAL PLAN OF DRAINAGE	SCALE: S=1:250	DRAWING No: K-26

DETAIL OF PIPE CULVERT

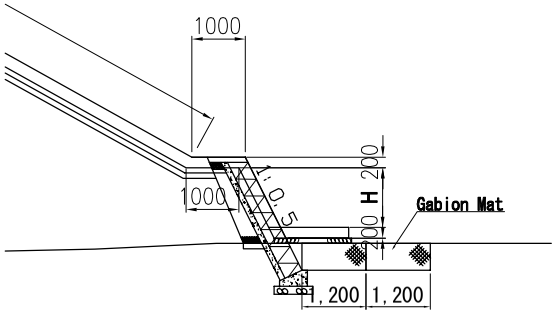
(KAAKA BRIDGE)



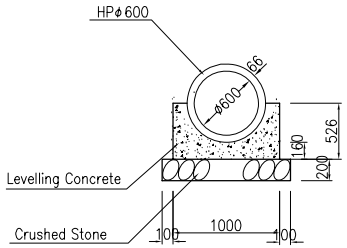
Plan View Of Culvert S=1:200



Facade View Of Ditch And Outlet Protection S=1:25



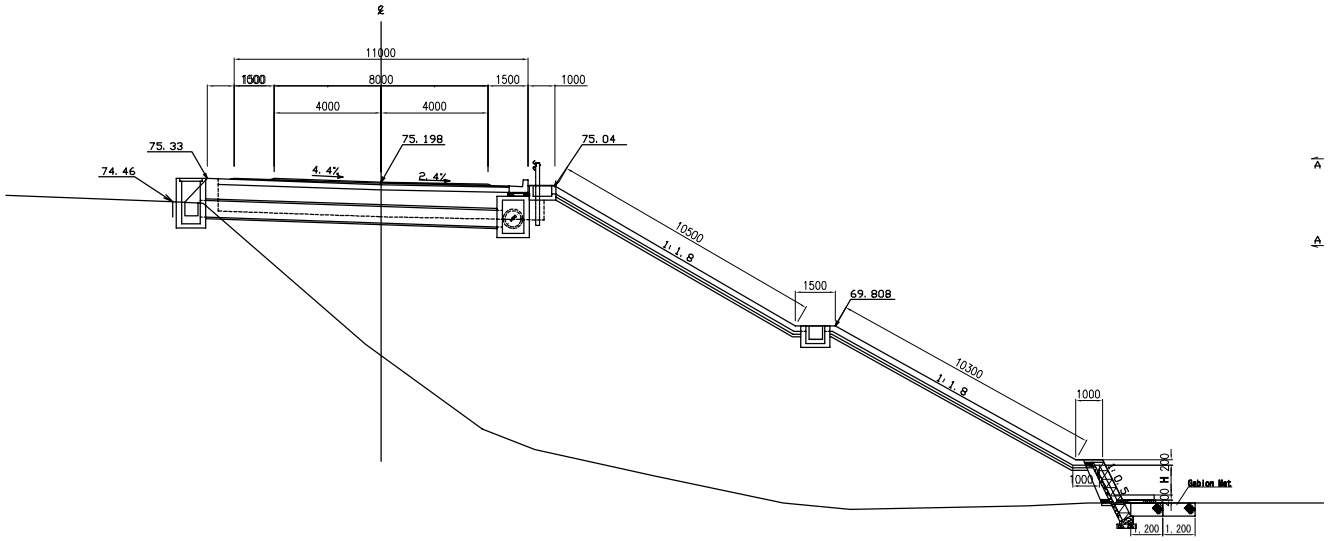
Side View Of Ditch And Outlet Protection S=1:50



Culvert Cross Section S=1:25

NO. 10+12.606

FH=75.198
GH=67.27



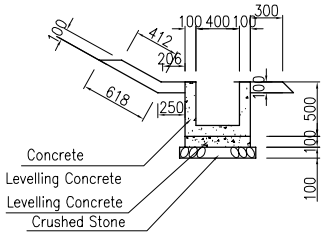
Side View Of Culvert S=1:100

DL=60.00

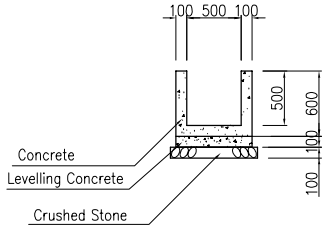
ROAD INVESTMENT DEPARTMENT MINISTRY OF PUBLIC WORKS, URBANIZATION AND HABITAT	BASIC DESIGN ON THE PROJECT FOR REHABILITATION OF BRIDGES ON ARTERIAL NATIONAL ROADS IN THE REPUBLIC OF GUINEA	JAPAN INTERNATIONAL COOPERATION AGENCY KATAHIRA & ENGINEERS INTERNATIONAL	TITLE: KAAKA BRIDGE DETAIL OF PIPE CULVERT	SCALE: AS SHOWN	DRAWING No: K-27

DITCH AND BOX OF DRAINAGE

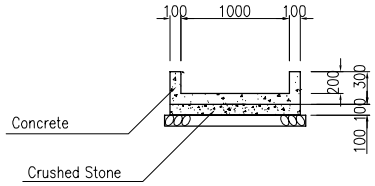
(KAAKA BRIDGE)



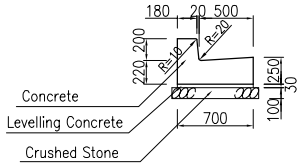
U Ditch(Concrete) Type 1



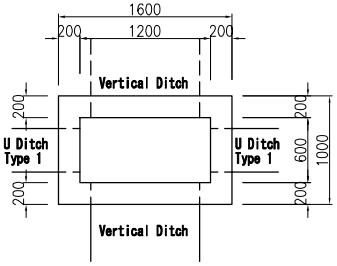
U Ditch(Concrete) Type 2

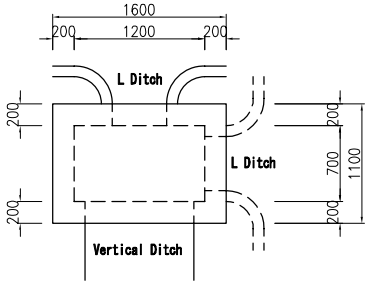


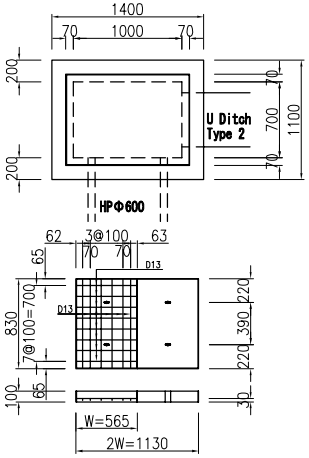
Vertical Ditch(Concrete)

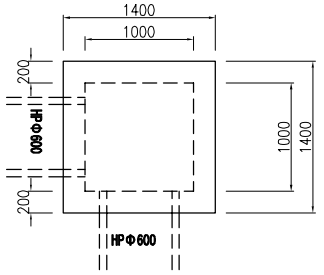


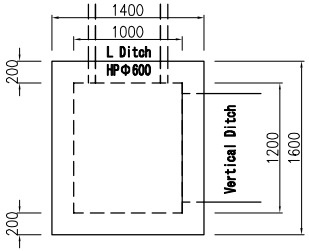
L Ditch(Concrete)

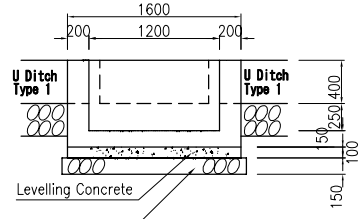




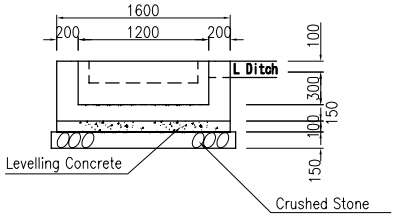




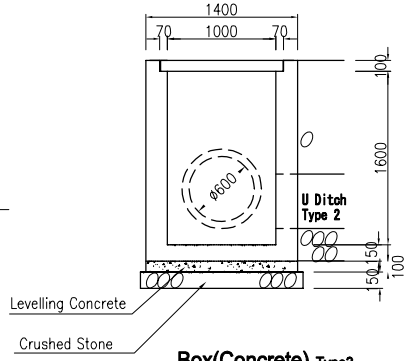




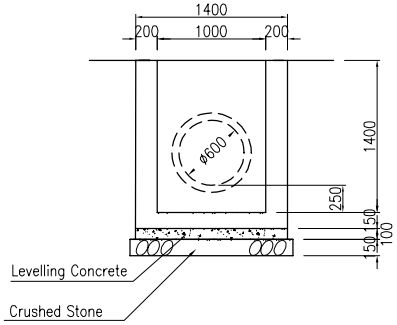
Box(Concrete) Type1



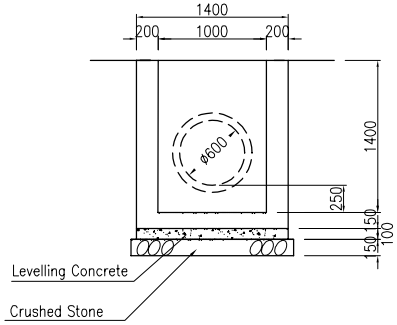
Box(Concrete) Type2



Box(Concrete) Type3



Box(Concrete) Type4

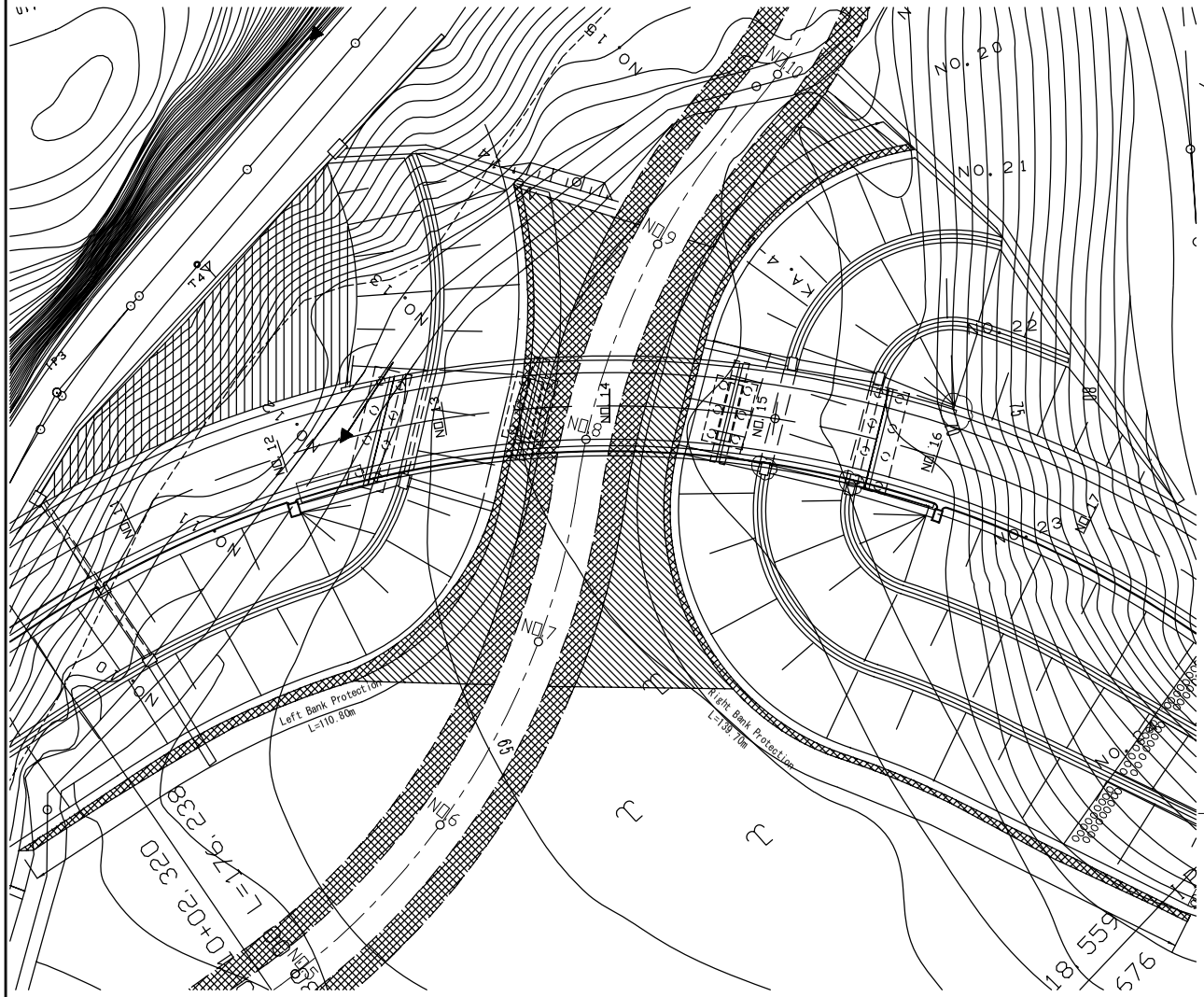


Box(Concrete) Type5

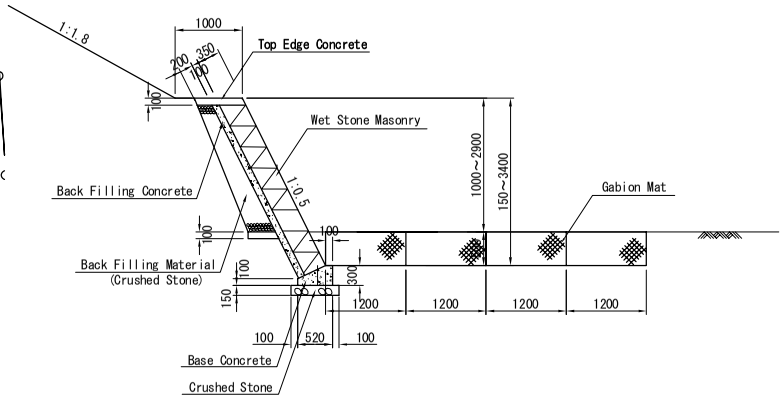
ROAD INVESTMENT DEPARTMENT MINISTRY OF PUBLIC WORKS, URBANIZATION AND HABITAT	BASIC DESIGN ON THE PROJECT FOR REHABILITATION OF BRIDGES ON ARTERIAL NATIONAL ROADS IN THE REPUBLIC OF GUINEA	JAPAN INTERNATIONAL COOPERATION AGENCY KATAHIRA & ENGINEERS INTERNATIONAL	TITLE: KAAKA BRIDGE DITCH AND BOX OF DRAINAGE	SCALE: S=1:25	DRAWING No: K-28

DETAIL OF BANK PROTECTION

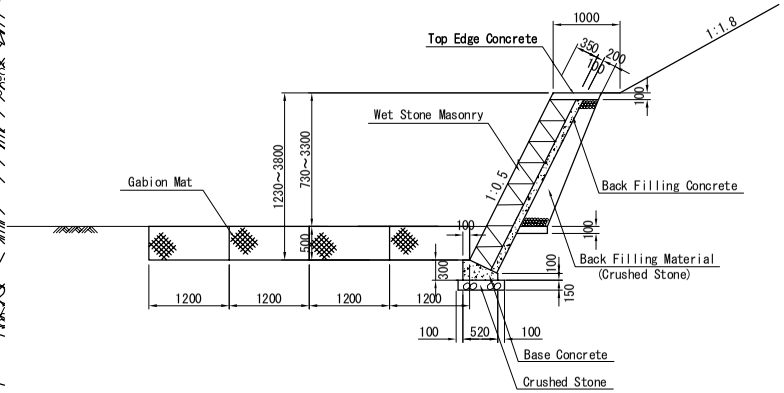
(KAAKA BRIDGE)



BANK PROTECTION PLAN S=1:300



LEFT BANK PROTECTION CROSS S=1:40



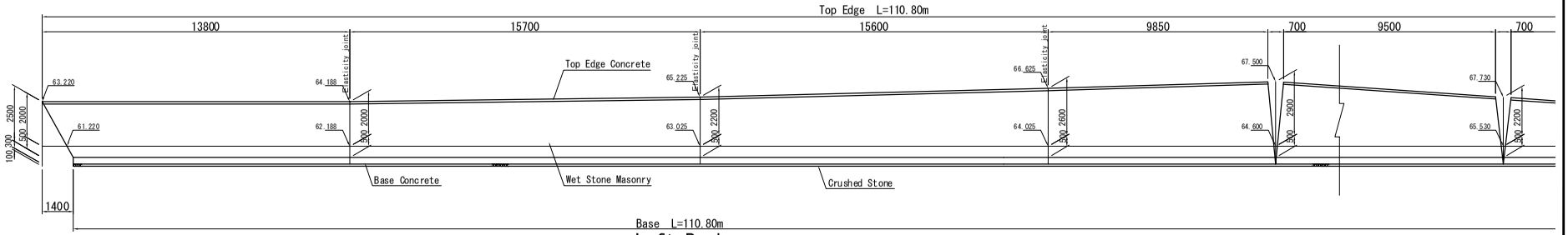
RIGHT BANK PROTECTION CROSS S=1:40

2-87

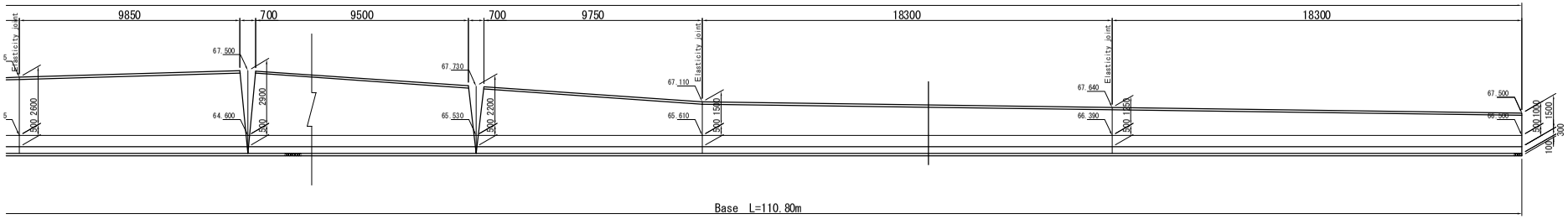
ROAD INVESTMENT DEPARTMENT MINISTRY OF PUBLIC WORKS, URBANIZATION AND HABITAT	BASIC DESIGN ON THE PROJECT FOR REHABILITATION OF BRIDGES ON ARTERIAL NATIONAL ROADS IN THE REPUBLIC OF GUINEA	JAPAN INTERNATIONAL COOPERATION AGENCY KATAHIRA & ENGINEERS INTERNATIONAL	TITLE: KAAKA BRIDGE DETAIL OF BANK PROTECTION	SCALE: AS SHOWN	DRAWING No: K-29

EXPANSION OF BANK PROTECTION

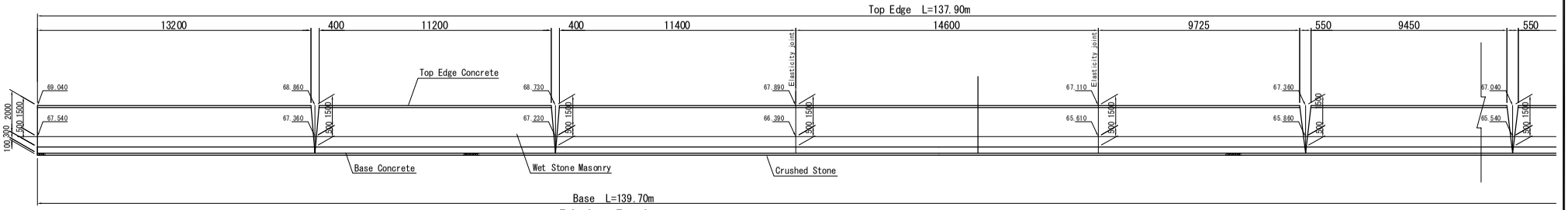
(KAAKA BRIDGE)



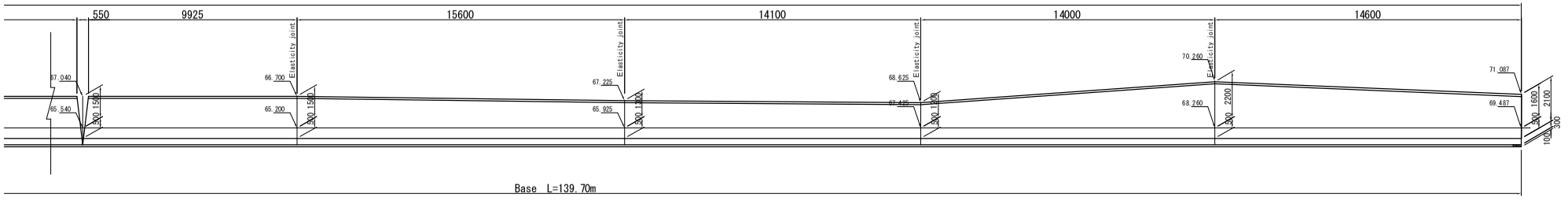
Left Bank



Left Bank



Right Bank

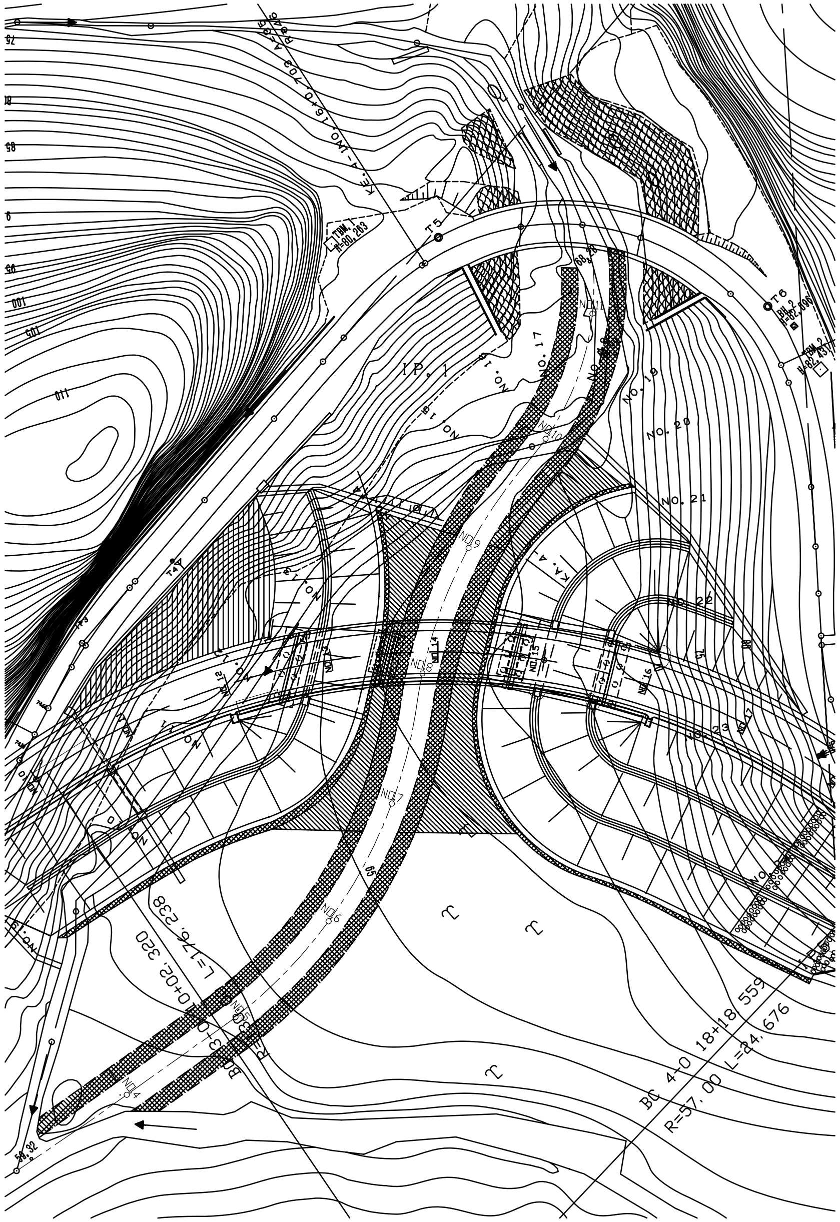


Right Bank

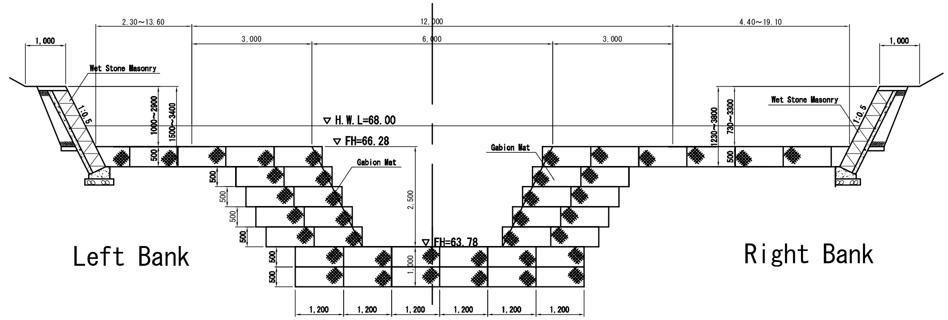
ROAD INVESTMENT DEPARTMENT MINISTRY OF PUBLIC WORKS, URBANIZATION AND HABITAT	BASIC DESIGN ON THE PROJECT FOR REHABILITATION OF BRIDGES ON ARTERIAL NATIONAL ROADS IN THE REPUBLIC OF GUINEA	JAPAN INTERNATIONAL COOPERATION AGENCY KATAHIRA & ENGINEERS INTERNATIONAL	TITLE: KAAKA BRIDGE EXPANSION OF BANK PROTECTION	SCALE: S=1:100	DRAWING No: K-30

GENERAL VIEW OF RIVER

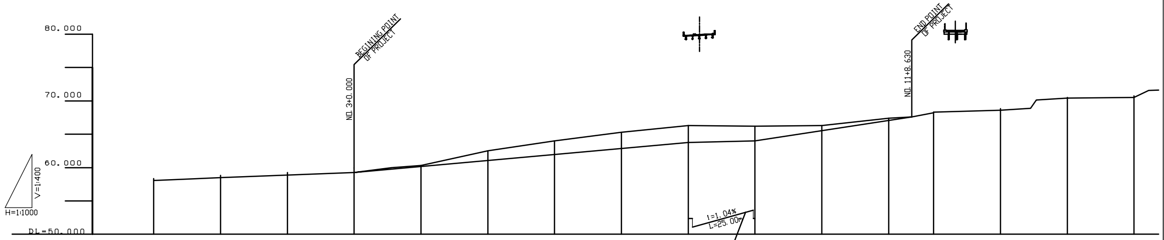
(KAAKA BRIDGE)



BANK PROTECTION PLAN S=1:500



BANK PROTECTION CROSS S=1:150



STATION	VERTICAL ALIGNMENT	RIVER BED HEIGHT	GROUND HEIGHT	INTERVAL
NO.0			58.050	0.000
NO.1			58.470	25.000
NO.2			58.860	25.000
NO.3	59.260	59.260	59.260	25.000
NO.4		60.160	60.30	6.150
NO.5		61.060	62.50	25.000
NO.6		61.950	64.00	25.000
NO.7		62.850	65.30	25.000
NO.8	63.740	63.740	66.30	25.000
+4.130		63.780	66.30	4.130
NO.9	64.000	64.000	66.20	21.870
NO.10		65.540	66.30	25.000
NO.11		67.080	67.40	25.000
+8.630	67.620	67.620	67.62	8.630
NO.12		68.300	68.300	8.170
NO.13			68.620	25.000
NO.14			70.420	25.000
NO.15			70.510	25.000

RIVER ELEVATION S=1:1000

ROAD INVESTMENT DEPARTMENT MINISTRY OF PUBLIC WORKS, URBANIZATION AND HABITAT	BASIC DESIGN ON THE PROJECT FOR REHABILITATION OF BRIDGES ON ARTERIAL NATIONAL ROADS IN THE REPUBLIC OF GUINEA	JAPAN INTERNATIONAL COOPERATION AGENCY KATAHIRA & ENGINEERS INTERNATIONAL	TITLE : KAAKA BRIDGE GENERAL VIEW OF RIVER	SCALE : AS SHOWN	DRAWING No: K-31

Rv.

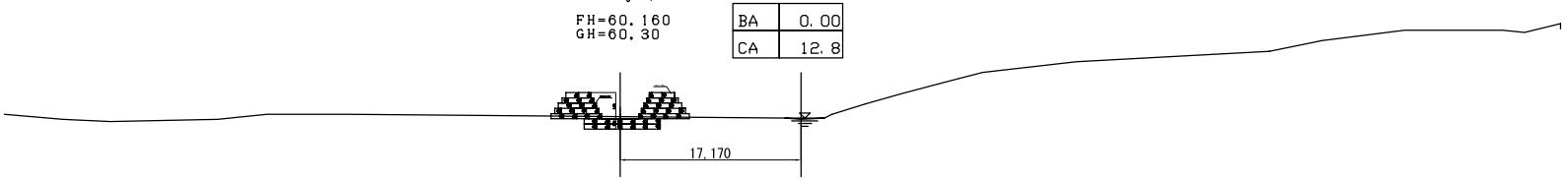
CROSS SECTIONS OF RIVER (1)

(KAAKA BRIDGE)

NO. 4

FH=60.160
GH=60.30

BA	0.00
CA	12.8

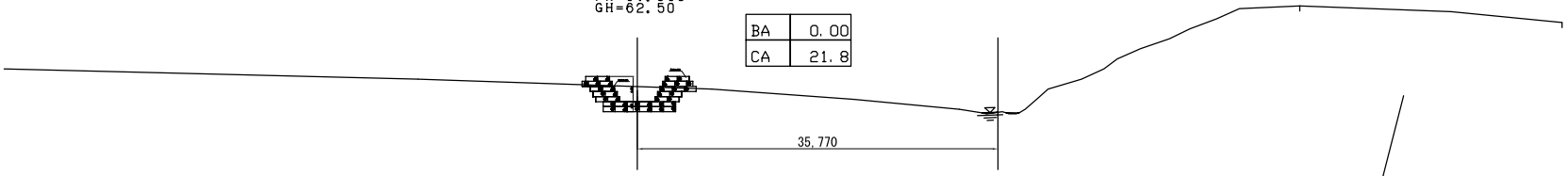


DL=50.000

NO. 5

FH=61.060
GH=62.50

BA	0.00
CA	21.8

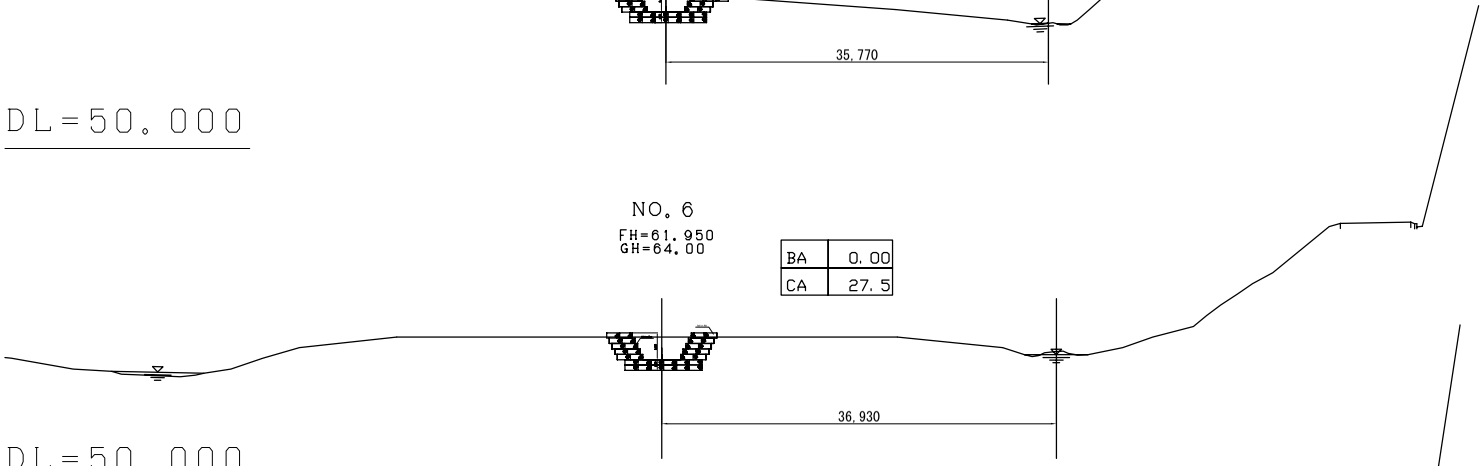


DL=50.000

NO. 6

FH=61.950
GH=64.00

BA	0.00
CA	27.5

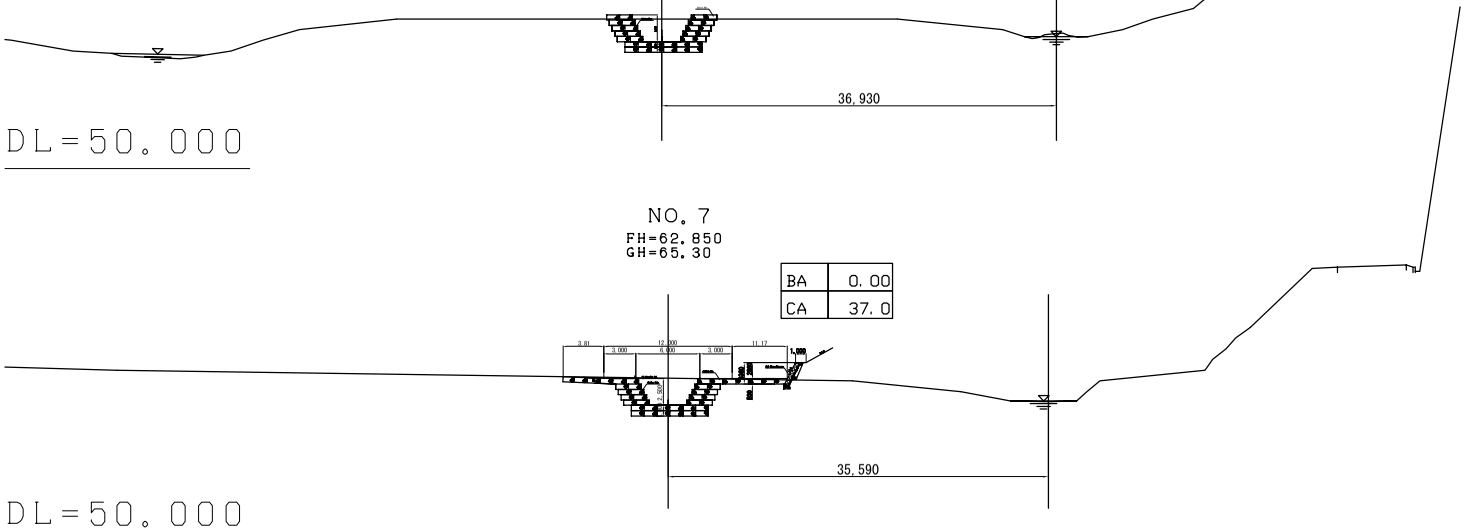


DL=50.000

NO. 7

FH=62.850
GH=65.30

BA	0.00
CA	37.0



DL=50.000

2-90

ROAD INVESTMENT DEPARTMENT MINISTRY OF PUBLIC WORKS, URBANIZATION AND HABITAT	BASIC DESIGN ON THE PROJECT FOR REHABILITATION OF BRIDGES ON ARTERIAL NATIONAL ROADS IN THE REPUBLIC OF GUINEA	JAPAN INTERNATIONAL COOPERATION AGENCY KATAHIRA & ENGINEERS INTERNATIONAL	TITLE: KAAKA BRIDGE CROSS SECTIONS OF RIVER (1)	SCALE: S=1:250	DRAWING No: K-32

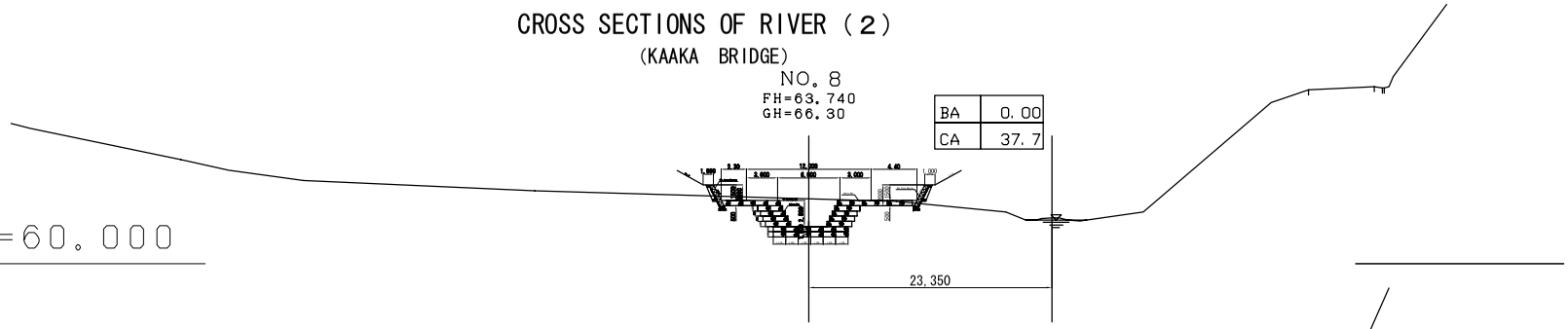
CROSS SECTIONS OF RIVER (2)

(KAAKA BRIDGE)

NO. 8

FH=63.740
GH=66.30

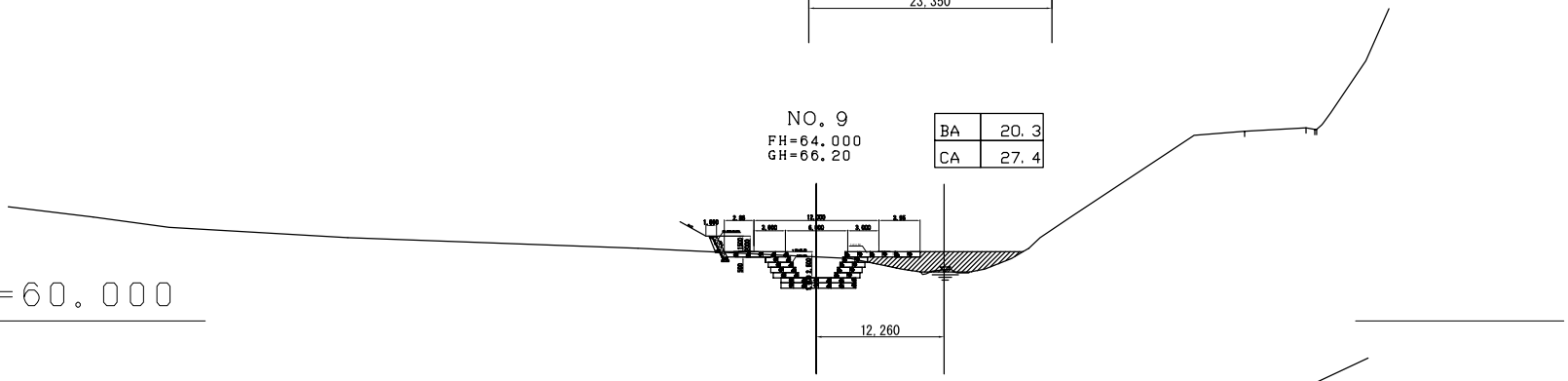
BA	0.00
CA	37.7



NO. 9

FH=64.000
GH=66.20

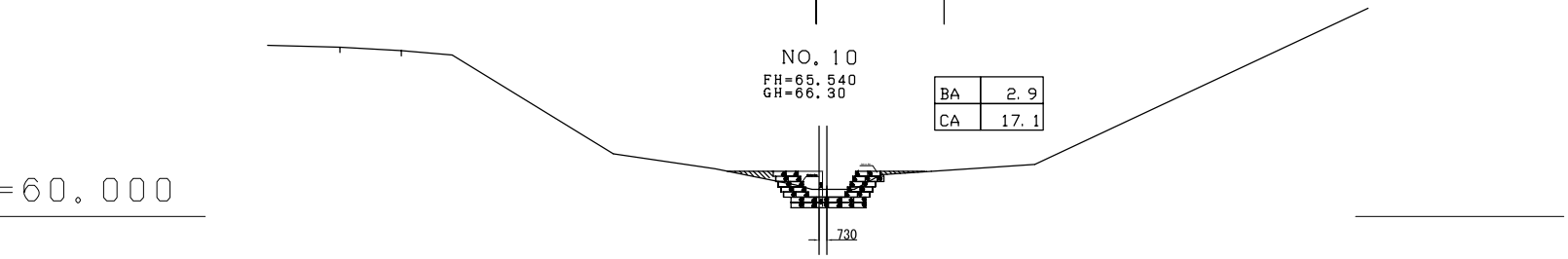
BA	20.3
CA	27.4



NO. 10

FH=65.540
GH=66.30

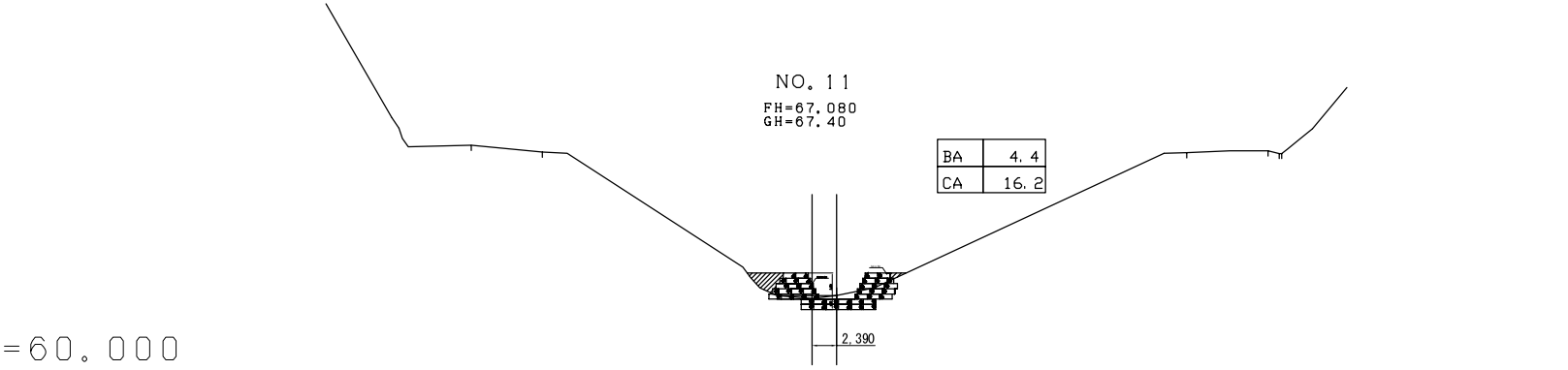
BA	2.9
CA	17.1



NO. 11

FH=67.080
GH=67.40

BA	4.4
CA	16.2



ROAD INVESTMENT DEPARTMENT MINISTRY OF PUBLIC WORKS, URBANIZATION AND HABITAT	BASIC DESIGN ON THE PROJECT FOR REHABILITATION OF BRIDGES ON ARTERIAL NATIONAL ROADS IN THE REPUBLIC OF GUINEA	JAPAN INTERNATIONAL COOPERATION AGENCY KATAHIRA & ENGINEERS INTERNATIONAL	TITLE: KAAKA BRIDGE CROSS SECTIONS OF RIVER (2)	SCALE: S=1:250	DRAWING No: K-33	Rv.